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## ORIGINAL COMMUNICATIONS.

### AN INQUIRY INTO THE CURABILITY OF PULMONARY CONSUMPTION;

WITH OBSERVATIONS ON ITS TREATMENT, AND CASES ILLUSTRATING THE EFFICACY OF COD-LIVER OIL.

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THE examination of the question, how far Consumption is a curable disease, is a subject which has scarcely received from medical men the attention it deserves, when we consider the very general prevalence of this disease, and the amount of mortality it occasions. The profession, as well as the public, have been so strongly impressed with the belief that the disease is necessarily fatal, that any one who would have maintained the opposite opinion would, until very recently, have been looked upon only in the light of a boasting pretender. Notwithstanding this, pathological investigations have shown, in the clearest manner, that recovery often does take place from this disease; and ever since the able investigations of Laennec proved that this may occur from the spontaneous efforts of nature, subsequent pathologists have been accumulating facts, proving more fully the correctness of his views and statements. Auscultation and percussion, by enabling us to separate those diseases from Consumption which most nearly resemble it, and to trace the successive steps of recovery on living individuals, have completed what was required, in order to establish the point. I believe that medical men are not generally aware of the amount of strong evidence that exists in reference to the curability of Phthisis; but I hope to bring forward in this paper a sufficient amount of facts to prove, that it admits of recovery in several ways, and that we should increase our efforts to save consumptive patients, having now, in cod-liver oil, at least one remedy which possesses an undoubted power over this destructive disease.

Let us, before entering upon this subject, inquire, as briefly as possible, what light has been thrown on the pathology of tubercle, and the changes it undergoes during absorption and transformation, by recent chemical and microscopical researches. As regards the blood itself,

from which it is an exudation or secretion, the only change of any importance which seems to have been yet discovered, is an increase in the quantity of fibrin; but this does not seem due so much to the tuberculous diathesis, as to the inflammation which accompanies the softening of tubercle. The proportion of blood corpuscles is generally below the standard of health; but Becquerel and Rodier[1] have shown that this is a change common to all chronic diseases, and much more marked in chlorosis.

Analysis of tubercle itself has shown, that it consists chiefly of albumen, with a little casein and fibrin, a considerable quantity of fat, and some extractive matters, probably the creatine and creatinine discovered by Liebig[2] in the muscles and urine. Dr. Madden thinks that the abundance of extractive matters shows, that there is either diminution of healthy excretion, or undue activity of the decomposing forces. The former he has taken as an indication for the use of means to promote the function of the excreting organs—the skin, liver, and kidneys. Crude yellow tubercle contains only about 2 per cent. of earthy salts, and 98 per cent. of animal matter; but, when it has undergone the cretaceous transformation, the proportions are reversed, the quantity of animal matter being about 3 per cent., and the remainder consisting of earthy salts, carbonate and phosphate of lime, with a little muriate of soda.

Tubercle being an exudation from the blood of a part of the liquor sanguinis, imperfectly vitalized, and therefore less highly organized than the fibrinous exudations of healthy inflammation, we naturally expect to find—what chemists have discovered in regard to its ultimate analysis—that it differs very little in composition from the proteine compounds.[3] These facts, it must be confessed, are almost negative, as regards any practical value.

*Microscopical* researches have thrown more light on the pathology of tubercle; and we have thus derived some information as to its primary seat, its structure, its relations to surrounding parts, and to other deposits of a healthy or morbid character. Dr. Carswell[4] thought that the air-cells were the usual seat of tubercles in the lungs; and that, whenever mucous membrane formed a part of an organ, it was either the exclusive seat, or more extensively affected than any of the other tissues. There seems to be much reason to believe, that the air-cells are the common, though not the exclusive, seat of tubercular deposit. I lately examined a specimen of crude tubercle, where it was beautifully seen filling the cells. Mr. Rainey[5] has described its appearance in the air-cells, and says, that it may sometimes be seen filling only one part of a single cell. He has endeavoured to show that the cells are not lined with mucous membrane, but the fact observed by Hassall, of the epithelium extending into them, appears to show that they are lined by this membrane. Different microscopical observers have shown that it may also be deposited in the intercellular tissue between the air-vesicles; in fact, anywhere external to the vessels; and Dr. C. J. B. Williams thinks it probable, that it may even form within the blood-vessels themselves.

[1] Recherches sur la Composition du Sang.
[2] On the Chemistry of Food.
[3] BENNETT. Northern Journal, 1846.
[4] Illustrations of the Elementary Forms of Disease.
[5] Medico-Chirurg. Trans. 1845.

Microscopical examination of tubercular matter has shown that it consists of corpuscles, which are characteristic of tubercle, and of granules and minute molecules. The corpuscles have no nuclei, and are considered to be undeveloped cells, which approach more or less nearly to the exudation or plastic cells of healthy inflammatory deposits. The miliary tubercle has some appearance of cells and fibres, but the crude yellow tubercle has no appearance of organization, and, during softening, the corpuscles swell, burst, and discharge granules. Dr. Williams's view—that lymph, tubercle, and pus, are only modifications of each other—shows how nearly tubercular deposition and inflammation must approach each other; and pathologists seem now agreed that they are closely allied processes, both being modified states of nutrition. Growth, nutrition, inflammation, and scrofulous diseases, are, observes Dr. Addison, analogous phenomena.

Besides the objects already described, there are also seen in tubercles the filamentous remains of the air-cells, fat globules, which increase in quantity as the softening takes place, pus, and other exudation products of inflammation, epithelium cells; and in cretaceous tubercles, large dark particles, and crystals of cholesterine.

Of these facts, furnished by microscopical examination, perhaps the most important, in reference to our present inquiry, is that of the tubercular corpuscles being most nearly allied to the fully developed cells of healthy inflammatory products, from which they appear to recede, and assume more of a granular aspect, in proportion as they become yellow and cheesy, or soften. "The miliary tubercle", Dr. C. J. B. Williams observes,[1] "differs from fibrin, not in kind, but in degree, of vitality and capacity of organization"; and this proves to us what experience had previously taught—the importance of removing the complication of inflammation or congestion of the lungs, in the prevention, as well as treatment, of phthisis.

In examining the *pathological facts* bearing upon the question of curability, I will first call attention to the circumstance, that many medical men, seeing their patients frequently die of phthisis, have become so incredulous of the possibility of recovery, that when they have seen a patient recover after having presented the usual symptoms, they have distrusted their diagnosis, and have taken the fact of recovery as a sufficient proof that the disease could not have been tubercular Consumption. Pathological investigations show that such is a most erroneous mode of forming an opinion, and prove also, that many persons, who have never had more than a moderate amount of pectoral symptoms, must have recovered from this disease. Laennec, in a chapter in his work, entitled, *Examen de cette question: la guérison de la phthisie est-elle possible?* had the merit of first proving that phthisical persons may recover, by the cretaceous transformation of tubercular matter, as well as by the cicatrization of cavities. He investigated the subject very fully, and detailed ten cases, in three of which the healing of cavities was traced by the stethoscope, and recovery took place after all the worst symptoms had supervened. In seven other cases, where the

[1] Williams, C. J. B., M.D. Principles of Medicine, p. 386.

patients were phthisical, but died of other diseases, he ascertained how recovery might take place by absorption of crude tubercles, and transformation into cretaceous or calcareous concretions; or by the softening and evacuation of tubercular matter, and the lining of the cavity so formed by a false membrane of cellular fibrous or cartilaginous texture, and also the complete disappearance of the cavity by the formation of a cicatrix. These facts were confirmed by Andral; and even Louis, who does not take by any means a favourable view of the curability of phthisis, and is more sceptical than most men as to any good effect from medical treatment, relates three cases of recovery; one in a man, 45 years of age, who, after presenting all the usual symptoms, as well as the physical signs, and keeping his bed for six months, recovered, and returned to his occupation; the second, in a man, 50 years of age, who had cavernous respiration and pectoriloquy; and the third, in a gentleman of rank, who consulted him several times, during a period of eight years, for trifling attacks of acute pulmonary catarrh, and afterwards died of a painful affection of the urinary passages. It was then discovered that he had a cavity at the summit of the right lung, and near to it two tubercles. This patient enjoyed robust health, with the exception of being subject to attacks of cold, and would probably have continued to do so, but for the other disease of which he died.

M. Rogée, in an able paper on the Curability of Phthisis, in the *Archives Générales de Médecine* for 1839, has proved in the clearest manner, that the *chalky*, as well as the *calcareous concretions*, resembling small stones, which are so often found in the lungs, are the result of the transformation of tubercle. There are many facts which prove this; the situation of these concretions, generally at the summit of the lung, sometimes in the midst of a group of tubercles, and often in a cavity from which the greater part of the tubercular matter has been evacuated. Tubercles are also sometimes found evidently undergoing this transformation, presenting the appearance of having become smaller, and being more opaque and whiter than other deposits in the same, or in the other lung. If further proof were wanted, it might be found in the fact, that crude tubercle, when dried, assumes a chalky appearance, similar to that of these concretions. I had last summer an opportunity of seeing tubercular matter in great quantity in every stage of transformation, in a woman who died in the Liverpool Infirmary of tubercular peritonitis. The abdominal cavity contained a very large quantity of a matter like mortar, and the mesenteric glands exhibited almost every form of tubercular disease, some being in the state of crude, cheesy tubercle, and others undergoing transformation. The liver was also fatty in this case; a fact tending to show that the fatty degeneration of the liver, which so often occurs in Pulmonary Consumption, cannot be ascribed to the function of respiration being interfered with, but that it bears a relation to tubercular disease generally, and is most frequently found in Pulmonary Consumption, only because the lungs are the organs in which tubercles are oftenest deposited in abundance.

It was at one time regarded as doubtful, whether tubercles could be absorbed; and Andral[1] noticed the wrinkled appearance which they sometimes assume, as showing the possibility of their being thus removed.

[1] Précis d'Anatomie Pathologique, tom. iii, p. 545.

On this point there cannot now be any doubt, but the conditions which favour absorption require further investigation. The miliary granulations, which Laennec considered the first stage of tubercle, and in which opinion he has been confirmed by Louis, are believed by Rokitansky to be, in many cases, merely a kind of fibrin. He considers that this form or stage of tubercle may undergo a kind of metamorphosis, which he calls *obsolescence*. "After the tubercle has passed through its condition of crudity, it loses its shining appearance and increases in density, becomes converted into a small hard lump, and then shrinks into a tough amorphous or slightly horny mass-cornification. It forms the basis of a complete destruction or death of the tubercle, and no further metamorphosis can take place."[1]

The softening of tubercle, Dr. Williams thinks, is promoted either by a deficient supply of blood, which does not maintain its imperfect vitality, or by an undue flow or accumulation of it exalting chemical affinities in a material which has no vital power of resistance.

When crude tubercle undergoes the cretaceous transformation, the animal matter must be removed by the vessels absorbing it; but the quantity of earthy matter is so much greater than what is contained in crude tubercle, that there must be a secretion of earthy salts at the same time, and this sometimes appears to take place into empty cavities also. Dr. Hughes Bennett considers the tendency of tubercular matter to disintegrate as highly favourable to absorption, if fresh deposits could be prevented; and Rokitansky observes, in reference to cretifaction, that it occurs as a secondary change, never attacking tubercle in its original form, but confining itself to the dissolving and dissolved blastema. It is easy to conceive that, when the corpuscles of tubercle have broken down into the granular state, they must be more within the absorbent power of the vessels; but the fact of the yellow crude tubercle being sometimes observed undergoing cretaceous change without softening, would seem to show, that it is at least not necessary that it should undergo such a degree of disintegration as that which immediately precedes the evacuation of tubercular matter. It is worthy, however, of remark, that transformation commences, as softening has usually been observed to do, at the centre of tubercles; and Dr. Valleix[2] has observed, that we sometimes find a tubercle having a hard calcareous concretion at the centre, round this cretaceous matter, and at the circumference a layer of tubercular matter. Boudet affirms, that transformation may take place in all the phases of their evolution.[3]

Such are some of the chief facts relating to the curability of Consumption by absorption and transformation of tubercle; but pathological researches furnish us with further evidence of the possibility of recovery in a more advanced stage, in the discovery of cicatrices produced by the healing of cavities at the summit of the lungs. Rogée has described four kinds,—those with persistence of the cavity; those in which the cavity contains some chalky or calcareous matter; those cicatrices which are fibro-cartilaginous; and those of cellular structure. There is usually some depression, or puckering, of the summit of the lung, where these

[1] British and Foreign Medico-Chirurgical Review, vol. i, 1848.
[2] De la Curabilité de la Phthisie pulmonaire, *Archives Générales de Médecine*, 1841.
[3] Recherches sur les transformations des tubercles: Comptes Rendus, 1843.

cicatrices are discovered, and the surrounding pulmonary tissue is often of a dark colour and indurated. These appearances may be regarded as some evidence of the former extent of the disease. Dr. Carswell has observed, that there may remain only a small globular oval or even linear portion of fibrous or fibro-cartilaginous tissue in a portion of the lung, where, from the extensive puckering around it, there must formerly have existed an evacuation of considerable extent. The healing of cavities has been observed in every stage; and it would seem, that the disease may be arrested, or at least become quiescent, even after it has produced great disorganization of the lungs, of which we have a remarkable example in a case related by Dr. Kingston.[1]

There are few medical men, who are in the habit of observing the *post-mortem* appearances in the lungs, who have not had opportunities of seeing cretaceous tubercles, and even the less frequent appearance of cicatrices and puckerings at the summit of these organs. The facts, indeed, are so palpable, that they have never been disputed; but they have been looked upon rather as rare and curious examples of what nature can do where art has failed, than as important practical facts, which should lead us to observe carefully the favourable circumstances under which the changes are brought about, with the view of arriving at a more successful method of treatment.

These appearances are not, however, by any means rare, indeed they are very common. Rogée found that of one hundred aged persons, who died at the Salpêtrière, there were fifty-one of this number who had concretions and other traces of tubercular disease of the lungs. In five of the cases he also found the cicatrices of the cavities which had healed; and he states, that in the course of a single year, he had been able to collect ten or twelve incontrovertible examples of the same kind. "J'insiste sur ce fait de fréquence, car c'est là que gît, à mes yeux, le point capital, le côté nouveau de la question. Les médecins instruits d'aujourd'hui ne nient guère qu'on ait vu *quelquefois* la phthisie guérir; mais pour eux cela tient du miracle tant c'est rare: ils n'osent jamais l'espérer. Puisse-je avoir réussi à convaincre que la guérison est assez commune quand la maladie n'est pas fort avancée, et qu'on a droit de la chercher avec espoir."[2] In 197 subjects, Boudet found ten with cavities completely healed; and within one year, he also collected fourteen cases of recovery from phthisis.

Dr. Hughes Bennett[3] also found in seventy-three bodies which he examined, that there were concretions and puckerings in twenty-eight. He also ascertained that these traces of the removal of tubercles are most common in elderly persons; for, in the twenty-eight cases, he found puckerings and concretions in only three individuals of the age of eighteen, in six between that age and forty, and in nineteen after that epoch of life. Dr. Stokes, when he published his work, was strongly in favour of the view, that patients sometimes recovered from phthisis; and he laid down the favourable indications, which he considered to justify the medical man in attempting what he called the curative treat-

[1] Medico-Chirurg. Trans., vol. xx, 1837.

[2] Essai sur la Curabilité de la Phthisie pulmonaire, etc. *Archives Générales de Médecine*, 1839,

[3] Bennett (J. Hughes, M.D.), Frequent and Spontaneous Cure of Pulmonary Consumption. *Edinburgh Med. and Surg. Journal*, 1845.

ment. Dr. Williams has also argued in support of the curability of phthisis, and has stated that he found phthisical lesions in the lungs of half the adults beyond the age of forty that he had examined, and that nature resists the progress, and limits and circumscribes the extent of the disease. I shall also have occasion to allude to the valuable facts of a much stronger nature, which he has since published, in reference to the efficacy of cod-liver oil.

These pathological observations are, as Louis has remarked, "assuredly of immense importance", and they form a body of facts which do not admit of being controverted. But it may be said, that the disease had in such cases been of only limited extent, and had not presented the ordinary symptoms, but been latent. A sufficient number of cases have, however, now been accurately observed during their course, and up to complete recovery, to disprove such a statement. Consumption is a disease, the diagnosis of which is more difficult than that of most others; and, though stethoscopic examination has assisted pathological investigations, more especially in demonstrating the occurrence of recovery by the healing of cavities, yet we know that in the earliest stage, when we have reason to suppose that tubercles admit most readily of being removed, neither the symptoms nor the stethoscopic signs furnish us always with undoubted evidence of their existence; and hence some doubt must often hang over the precise nature of such cases. There is reason therefore to believe, that much evidence of the curability of Consumption, which we would possess, were it not for the difficulty of diagnosis in the earliest period, is in this way entirely lost. The number of cases in which the cretaceous transformation of tubercles has been found, so far exceeds those in which cicatrices have been discovered, that this is proved not to be a mere speculative assumption; and we can scarcely therefore avoid the conclusion, that many, who have suffered to a moderate extent from cough and other pulmonary symptoms, have really recovered from the early symptoms of consumption.

The limits of this paper prevent me from entering into an examination of the *symptoms* and *physical signs* of the early stage, for the purpose of proving this more fully, and of showing what diseases we are apt to confound with it. There are, however, one or two important points which I shall briefly notice. The symptoms furnished directly by the condition of the lungs themselves in phthisis, are, cough, expectoration of different kinds of sputa, shortness of breath, pain, and hæmoptysis. Now all of these symptoms, with the exception of the last, derive their value and signification entirely from their combination with other symptoms, and with physical signs. It is otherwise, however, with hæmoptysis, which is alone the most certain of all the symptoms of tubercle in the lungs, provided the patient has not received any injury of the chest, is free from disease of the heart, and, if a female, is not suffering from sudden suppression of menstruation. Yet it very often happens that we see patients recover, and enjoy a fair share of health, after having had cough and hæmoptysis.[1] Of the symptoms arising from disorder of other functions than that of the lungs, the most important are hectic fever, perspirations, emaciation, and diarrhœa.

[1] Louis, (P. C. A., M.D.) Researches on Phthisis, p. 169.

These also derive much of their value and signification from being combined with some of the preceding. Perspirations are very rarely absent during the course of this disease; and I believe that loss of flesh always occurs, to a greater or less extent, when tubercles are in an active state. We may observe, then, that cough of some standing, night-sweats, and loss of flesh, constitute a group of symptoms which, in the majority of cases, indicate the presence of tubercular disease; and, if to these we can add hæmoptysis, we combine those symptoms which afford the most certain evidence of the presence of tubercular disease of the lungs.

Examination of the chest with the stethoscope has furnished the counterpart of some of the proofs of the curability of Consumption, which have been derived from pathology, more especially in reference to the healing of cavities; and it often enables us to discover the disease, long before it can be detected by symptoms alone. It is, however, a well-ascertained fact, that tubercle must be deposited to a considerable extent, before it can be discovered by the signs which it occasions directly by its own presence, such as dulness; and it often happens that, before it gives any decided evidence of its presence by producing consolidation, the local irritation it has excited may occasion crepitation, or sibilant, or other rhonchi. Now it has been shown by Louis (see his observations on case 56), and others, that when these signs of bronchitis or pneumonia are confined to the apex of one lung, they indicate, with great certainty, the presence of tubercles. I have seen several cases, in which the signs of bronchitis (sibilant and mucous rhonchi, with a scarcely appreciable amount of dulness), were thus confined to the summit of one lung, and where recovery took place. Such cases, I think, I have been justified in regarding as recoveries from the early stage of phthisis.

If the facts and arguments which I have now advanced to prove the curability of Consumption, have appeared wanting in sufficient foundation, I would now refer, in confirmation of these views, to the valuable *statistical proofs* furnished by the able Report of the Hospital for Consumption.[1] The Report shows, as we might expect, that the most favourable results have been obtained in the first stage; and of 187 cases in this stage, it appears that seventy-five, or nearly one half, were much relieved. In eighteen cases, or more than ten per cent., the disease was arrested; and the term arrest is defined as implying that all, or nearly all, the symptoms of the disease had disappeared, the patients feeling themselves well, and being able to pursue their ordinary occupations. The report also states, that in some of these, the evidence of local mischief had greatly diminished, and in a few had disappeared; such patients being, in fact, scarcely in a worse position than they were before the attack. Of fifty-three cases in the second stage, the disease was arrested in two. Of 295 cases in the third stage, it was arrested in ten cases. The Report observes: "Viewing these results collectively, without reference to age or sex, we find that benefit is conferred in 36 per cent. of the cases, material relief in nearly 25 per cent.; in nearly 6 per cent. the disease is arrested; and here it should be borne in mind, that the delay which occurs in the admission of patients,

[1] First Medical Report of the Hospital for Consumption, 1849. An analysis of this Report was given at page 37 of our last number.

in consequence of the want of accommodation for the numbers who apply, allows the disease to advance, and thus renders the treatment more difficult and less successful than it would otherwise have been. Still, under such unfavourable circumstances, it is satisfactory to find, that in nearly 6 per cent. of the cases of this disease, considered by many to be beyond the reach of treatment, a result has been obtained, which a desire not to speak too confidently alone forbids to designate as cure." When I speak of treatment, I shall have occasion to show that still more favourable results were obtained in those cases where cod-liver oil was used; but the facts advanced in the preceding inquiry, and the statistical proofs now adduced, justify me in stating, that a close examination of this disease proves that it is not, as has been generally believed, utterly hopeless and incurable—a view which would paralyse all our efforts at treatment. Whilst, therefore, " we must pause, ere we in future pass the terrible sentence of no hope on the consumptive invalid",[1] it becomes also our duty to redouble our efforts to save such patients.

### ANTAGONISTIC DISEASES.

The investigation of the favourable circumstances under which spontaneous recovery takes place, has scarcely received the attention it deserves.[2] There are, however, a few facts in reference to antagonistic diseases, which bear upon this point, and to which I must allude before entering upon the treatment.

*Emphysema of the lungs* is a disease which undoubtedly tends to prevent the development of tubercles, and a moderate degree of it must therefore favour recovery from Consumption. I have seen some cases which have convinced me of this; and the researches of Rokitansky and Hasse confirm what I have observed.

A gentleman, aged 38, who was of rather weak constitution, and had suffered slightly for a considerable time from cough and shortness of breath, became much worse in the end of September 1847, and soon after consulted me, with the usual symptoms of Consumption. He had very troublesome cough, with muco-purulent expectoration. He had become very thin and weak, and had also profuse perspirations at night; and to these symptoms was afterwards added hæmoptysis. There was increased clearness of sound on percussion; but this affecting the summit of the lungs chiefly, rendered it difficult to ascertain, by physical examination, to what extent tubercles might be deposited, though the symptoms left no doubt as to their presence. He had persistent pain in the left side of the chest, rather low down, and just below the level of the left nipple; where there were, while the spitting of blood lasted, a few bubbles of mucous rhonchus, indicating that this was the seat of the disease. Having observed the antagonistic effect of emphysema in other cases, I ventured, notwithstanding the apparently hopeless character of the symptoms to hold out some prospect of recovery. The spitting of blood was stopped by means of turpentine; and counter-irritation, by croton-oil liniment, and the use of sedatives, with expectorants, relieved

[1] Williams (C. J, B., M.D.) Cod-liver Oil in Consumption. London Journal of Medicine, January 1849.

[2] Bacon. " Homo naturæ minister et interpres tantum facit et intelligit quantum de naturæ ordine re vel mente observaverit, nec amplius scit aut potest."

the cough and difficulty of breathing, so that he was enabled to go to the country for change of air, and to take tonics. He returned in December, much improved; and though he has seldom been long free from cough altogether, yet he has enjoyed a fair share of health, considering that he has emphysema of the lungs, along with tubercles. He had some return of hæmoptysis at the beginning of this winter, after which he took cod-liver oil with much benefit.

In this case, I have no doubt that emphysema was a chief cause of preventing, and still continues to repress, the progress of the tubercular disease. I had also in the two following cases, where the patients died of another disease—inflammation of the lungs—an opportunity of observing the power of the same cause in retarding the advance of tubercular disease.

A seaman, aged 40, of muscular frame, was admitted under my care into the Northern Hospital, in a very advanced stage of inflammation of the lungs. It was ascertained that the acute attack was of recent occurrence, but that he had suffered from cough, more or less, for two years. He died the same evening; and, on examination, it was found that both lungs were emphysematous. The upper part of the left lung was highly so, and it was also very much puckered from an old cicatrix. Within this part a cavity was found, which was completely lined with a false membrane, and in progress of healing. Around this, and in other parts of the lung, there were tubercles, which seemed to have been deposited at different times, as some of them were small miliary tubercles, and others larger and hard, as if undergoing cretaceous transformation. The right lung was inflamed throughout; and, at the lower part, it was in a state of purulent infiltration, and at the summit, in a state of red hepatization. There were some tubercles in this lung also, and at the apex, a cavity lined with false membrane. The disease was evidently not in a progressive state in this case; this being proved by the dryness and hardness of the tubercles, one of which was as large as a nut, and by the lining of the cavities by a well-organized membrane. Nature was therefore evidently making an effort to repair the ravages of the disease; and we have seen that this coincided with a great amount of emphysema.

A man, aged 26, was admitted into the Infirmary last September, in a similarly advanced stage of pneumonia. On examination, it was found that there was intense bronchitis and lobular pneumonia affecting both lungs. There were tubercles in both lungs, and much emphysema. At the apex of the left, a cavity of considerable size was found, lined by a fine membrane, like that of the bronchial tubes, and there were two others, lined with a thick white membrane of a soft texture. The tubercular disease was evidently making but slow progress in this case also. (See also Laennec, *Emphysema*, Obs. VIII.)

Hasse observes, that "those much in the habit of examining the dead body, cannot but be struck with two circumstances: first, the almost invariable existence of emphysema in lungs which bear the characteristic marks of recovery from phthisis; and, secondly, the proportional rareness of tubercular deposits in emphysematous lungs. This would seem to show, that dilatation of the air-cells constitutes one of the conditions, under which the cure of phthisis is possible; and, again, that

it forms an obstacle to the development and progress of tubercle."[1] Rokitansky thinks that emphysema hinders the formation of tubercle, by inducing a state of venosity of the blood, in which it is imperfectly arterialized, and wanting in fibrin. To the same cause he attributes the rare occurrence of tubercle in those cases of disease of the heart and arteries which prevent the proper arterialization of the blood. His observations on the connexion of tubercle with other morbid states are of the deepest interest; and, if his explanation of the effect of emphysema and disease of the heart, in repressing the deposition of tubercle, were correct, we should see an object which we might seek directly to attain in treating tubercular diseases. I am, however, disposed to think that emphysema may have merely a local effect in preventing the formation of tubercle; for the quantity of blood circulating in the capillaries of an emphysematous portion of lung is much diminished, and hence we find that pneumonia is less apt to attack such parts. We have already alluded to Dr. C. J. B. Williams's opinion, that an undue flow or accumulation of blood, from congestion or inflammation, will hasten the maturation of tubercles, by exalting chemical affinities; while, on the other hand, they manifest little disposition to change, so long as they are kept free from superfluous moisture. In this way, emphysema may prevent their progress, by lessening the quantity of blood in the capillaries; and it is also worthy of observation, as supporting this view, that in some cases of phthisis, where the function of one lung has been arrested by perforation, the progress of the disease has (where the patient has recovered from the immediate effects of the accident) been for a considerable time arrested. Of this, some examples have been given by Dr. Stokes. If Rokitansky's view of the venosity of the blood retarding the advance of tubercles were correct, we should find the progress of the disease equally repressed in both lungs; but I believe that this occurs chiefly in that lung, the function of which is arrested; and indeed, if this were the true explanation, then tubercular deposition in the lungs, by impeding respiration, and thus causing a more venous state of the blood, should tend to arrest its own development.

The arrest of the development of tubercular disease of the lungs during pregnancy, is an important fact, and there are few medical men who have not had opportunities of observing it. About two years ago, I had under my care a young female, advanced towards the fourth month of pregnancy, in whom one lung was destroyed to nearly half its extent by cavities. She had obstinate diarrhœa, and was reduced to the last stage of emaciation and debility. Yet, as soon as she was made aware of being pregnant, it had such a cheering effect upon her, that she speedily began to recover, believing that all her illness arose from that cause; and thus the disease was arrested for a time. Rokitansky's mode of accounting for the antagonistic effect of pregnancy in Consumption, by referring it to the venosity of the blood, induced by the enlargement of the abdomen interfering with respiration, is too mechanical an explanation, and not at all satisfactory, as it is by no means proved that the blood is imperfectly arterialized during pregnancy. The demand for an increased supply of blood for the uterus and its contents, is a

[1] Hasse (C. E., M.D.) Anatomical Description of the Diseases of the Organs of Circulation and Respiration. Translated by W. E. Swaine, M.D. Sydenham Society. 1846. p. 313.

much more important change, through which we may endeavour to explain the arrest of the tubercular disease. It is a fact, that the blood, instead of becoming more venous, contains an augmented proportion of fibrin; and the growth of the fœtus seems not only to require this, but, by attracting it to itself from the lungs, to arrest the morbid process of nutrition in these organs.

There are some other diseases which are believed to be antagonistic to phthisis. Thus, Consumption is not common in situations where ague prevails. Rokitansky also thinks that bronchocele and rachitis prevent tubercular disease of the lungs.

### TREATMENT OF CONSUMPTION.

The limits of this paper prevent me from entering into any extended observations on the treatment of this disease; and, as my chief object has been to prove that persons more frequently recover from Consumption than has been generally supposed, I shall confine my remarks, as much as possible, to an examination of those means which have been thought to have some power in promoting the absorption of tubercle, and I shall speak more particularly of the efficacy of cod-liver oil. There are, however, a few important *indications* which I shall first notice as briefly as possible.

Whatever may be the condition of the blood and of the capillary vessels, which determines the exudation or secretion of tubercular matter, there cannot be any doubt that debilitating causes, such as innutritious food, deficient exercise, and impure air, have a powerful influence in producing this disease. The researches which have been made in the present day in chemistry and physiology, have tended more and more to prove the connexion between deranged assimilation and many diseases; and in struma, Dr. Prout has observed that all the assimilating processes are at fault, but chiefly those which take place between the duodenum and the circulating system, and by which the chyle is converted into blood. It is also well worthy of notice, that tubercles may be produced in some of the lower animals by confining them in damp places, and feeding them on unwholesome food. This was done with rabbits by Drs. Baron and Jenner,[1] and by Dr. Carswell; and it is a fact of some importance, as well in reference to the curability of tubercular diseases by absorption, as in showing the power of good alimentation, that the tubercular disease has been removed by feeding them afterwards on more nutritious food. In some kinds of insects, too, it has been found that a tubercular deposit may be produced by feeding them on bad food, and repeatedly plunging them in cold water. The same influences operate on man; for Dr. Baly[2] has shown, that mental depression and confinement cause a remarkable increase in the mortality among the inmates of prisons, and that this is chiefly produced by Consumption and scrofula. Such facts show us the importance of hygienic means of treatment; and, viewed in connexion with the power of cod-liver oil in promoting the assimilation of the food, they prove to us forcibly the necessity of bringing the digestive organs into as healthy a state as possible, in order to effect the most perfect assimilation of light nutritious articles of diet.

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[1] Baron on Tubercular Diseases. [2] Medico-Chirurg. Trans. vol. xxviii, 1845.

We have already shown, that inflammation and tubercular deposition are allied processes; and the effect of local irritation, in producing Pulmonary Consumption, is exemplified in the frequency of the disease in persons whose occupations cause them to inhale silicious or metallic particles; and I have no doubt that the fact, noticed by Phillips, of Consumption being most prevalent in towns, and scrofula less so, while the reverse occurs in the country, arises, not, as he supposes, from any difference between these diseases, but, in a great measure, from the inhalation of particles of dust and smoke determining the deposition of tubercular matter in the lungs instead of the external parts. In all our efforts to cause the absorption of tubercles, it must, therefore, be a matter of primary importance to prevent irritation, and to remove inflammation or congestion of the lungs by the usual means—local depletion, and counter-irritation more especially. The action of all the depurating organs which purify the blood by removing from it the products of the worn-out tissues, should be promoted by the appropriate means; and, with the view of preventing catarrhal irritation at the earliest period, I believe that there is no means so effectual as washing the whole surface with tepid or cold salt and water, followed by friction, which excites the depurating function of the skin, fortifies it against the impression of cold, and acts as a general tonic.

The condition of the blood, as ascertained by Andral, and subsequently by Becquerel and Rodier, furnishes another important indication in the treatment of phthisis, and one which has been found practically useful. In the earliest stage, and perhaps in some cases also before the formation of tubercles, the proportion of globules is below the healthy standard: as the disease progresses the quantity falls; and in one case, Andral found the proportion as low as 72 parts in 1000 of blood. In this respect, Consumption bears a resemblance to chlorosis, and in the diminution of the red globules, we have, in the one disease as well as the other, an indication for the employment of chalybeate tonics. I may here observe that, though we have this diminution of the red globules, we are seldom able to discover a loud continuous murmur in the veins of the neck, which is so common a sign in chlorosis; This difference I account for, from there being in chlorosis not simply a diminution of the red globules, but also an increase of the aqueous part of the blood. The veins are thus kept in a state of tension, which is favourable to the production of the venous murmur. In Consumption, on the other hand, especially when the disease is in an active state, there is a diminution not merely of the globules, but of the whole quantity of blood in the system, which, with the relaxed state of the tissues arising from loss of flesh, prevent the degree of venous tension necessary for the full development of this murmur. When, however, the tubercular disease has become quiescent or has receded, I have sometimes observed the occurrence of a continuous murmur in cases where it had at first been absent; and this I have considered a favourable sign.

In the preceding part of the paper, we have endeavoured to show that there are three ways in which recovery from Consumption may take place; first, by the shrivelling of miliary tubercles; secondly, by the transformation of crude yellow tubercles into cretaceous or cal-

careous concretions; thirdly, by the healing of cavities. We have now, fourthly, to show that the results of treatment seem to prove that tubercles may be removed by absorption. We cannot, however, have ocular proof of this, and hence there has been doubt as to the possibility of the removal of tubercles in this way; but the facts I have still to adduce will tend still further to remove any doubt on this point.

The remedies which, I think, have most claim to our attention as agents capable of promoting changes in tubercular matter, are *mercury*, *iodine*, the *alkalis*, and *cod liver oil*.

As *mercury* is unquestionably the most powerful remedy we possess, for promoting absorption of the serous and fibrinous exudations of acute inflammation, we would naturally expect that it should have some power in causing absorption of tuberculous deposits; but it would seem that in proportion as they recede from and lose the characters of plastic organizable fibrin, they are less under the sorbefacient influence of this remedy; and in ordinary cases of Consumption, not distinctly produced by acute inflammation, mercury, though occasionally useful as an alterative, to promote the biliary and other secretions, is injurious when given so as to act upon the constitution—producing a debilitating effect, and hastening the softening of tubercles. In cases of chronic pneumonia, which hold an intermediate place between pneumonia and phthisis, I have employed the remedy in the latter way; and, if we had reason to believe that miliary tubercles existed in an early stage, I think we might be justified in using this remedy, with the view of promoting the mode of transformation described by Rokitansky. The local application of mercury is a powerful means of causing the absorption of indurated swellings, as, for example, of the joints; and, as we are now able in many cases to arrest the constitutional disease in Consumption, it becomes us to use every means likely to assist in the removal of the local disease also; and none appears likely to be of more service than mercurial inunction. Dr C. J. B. Williams says, that he has successfully treated several cases, in which the signs and symptoms left him in no doubt as to the existence of tuberculous peritonitis, by ointment of iodide of mercury to the abdomen, together with iodide of potassium internally.

The preparations of *iodine* have some resemblance to mercury in their effects, but, unlike this remedy, they are not of any service in acute disease, but are more useful in causing the absorption of tubercular deposits, especially in glandular structures. The syrup of the iodide of iron is the preparation I have most frequently used, as it combines the absorbent properties of iodine with the tonic power of iron, and thus fulfils the indication in reference to the diminution of the globules of the blood. I regard it as one of the best tonics we can use in the early stage of the disease, and I think that I have seen the early symptoms of phthisis arrested by it in a few cases. It was, during last summer, the chief means of restoring to health a young gentleman, who, in addition to cough, and loss of flesh and strength, presented the signs of incipient tubercular deposit at the summit of the left lung—very slight dulness with some sibilant rhonchus. I prescribed it with very good effect in the case of a lady about thirty years of age, who came from some distance in the country to consult me, in July 1847. She had become thin and very liable to colds, and had some mucous expectoration. She had also

had an attack of spitting of blood three years previous. Some consolidation at the upper part of the right lung was indicated by slight but distinct dulness on percussion close to the sternum, and increased loudness of the cough and voice in the same spot; but there were no mucous or other rhonchi. She wished to remove to the South of England; but as the disease did not seem in an active state, I recommended hygienic means of treatment, to improve the general health. I also ordered syrup of the iodide of iron, with tincture of hyoscyamus in infusion of calumba, and inunction of iodide of lead ointment below the right clavicle. When I again saw her, five or six weeks after, I found her improved in health; and the signs of consolidation appeared, both to her ordinary medical man and myself, to have diminished considerably. She has since then enjoyed pretty good health, and has had two children, but during last pregnancy there was some return of hæmoptysis. After this, she took cod-liver oil for a considerable time, with benefit. The iodide of lead ointment I have used in other cases besides this, with the view of causing absorption of tubercular deposits in the lungs, on the same principle on which we use it in scrofulous glandular swellings. I think it better suited to produce such an effect than the application of a concentrated tincture of iodine, which is a powerful counter-irritant, and, as such, has been found "remarkably beneficial" at the Hospital for Consumption.

Before the introduction of iodine, the *alkalis* were regarded as remedies of considerable absorbent power. Liquor potassæ is a powerful alterative medicine, and it has sometimes been found to cause absorption of an enlarged gland even after iodine has failed. Dr. Campbell recommended it very strongly in phthisis; and Sir J. Clarke has observed, that the alkalis increase the urinary, and appear to promote the bilious secretion, and to render that of the mucous membranes more fluid: in whatever way they operate, they are certainly beneficial in many tuberculous affections.[1] Their power of promoting absorption of the lymph and other exudation products of inflammation of the lungs or pleura, especially when combined with iodine, is a fact of acknowledged practical value. Dr. Golding Bird[2] has communicated some most interesting and useful information as to the action of alkaline remedies; he calls them depurating or chemical diuretics, and has shown that, unlike most diuretics, they increase not only the fluid, but also the solid parts of the urine. This they do by a chemical action on the exhausted and worn-out tissues; and he thinks that parts of low vitality, such as tubercle, will be most readily acted on by these chemical agents. It is also worthy of notice, that the caustic alkalis are the most powerful solvents of tubercle; and it is therefore reasonable to suppose that they will retain a portion of that power, when circulating with the blood in the capillaries.

*Cod-liver oil* has been known as a remedy for Consumption and scrofula in Germany and the north of Europe for a considerable period, and Dr. Hughes Bennett[1] has the merit of having brought it into notice in this country. Of the three kinds of oil, the pale, the light brown, and the

[1] Treatise on Pulmonary Consumption.
[2] Lectures on the Influence of Researches in Organic Chemistry on Therapeutics.
[3] Treatise on the Oleum Jecoris Aselli. 1841.

brown, it has been thought in Germany that the darkest coloured is the most useful; and this opinion was supported by Dr. Bennett, and is still maintained by Dr. De Jongh. It seems, however, to be now sufficiently well ascertained, that the brown has no superiority over the pale oil. I have seen the best effects speedily produced by the purest specimens of pale oil. Dr. Williams used the pale oil prepared according to Donovan's method; and in the report of the Hospital for Consumption, it is stated that "different qualities of oil, have been tried without exhibiting any marked difference in the remedial effects; but the offensiveness of some of the darker kinds renders their general use impracticable."

The power of this remedy in controlling the progress of phthisis in a large proportion of cases, and even of arresting its progress in not a few, has now been completely established; and the Hospital for Consumption has even furnished us with statistical facts as to the results of treatment in each stage of the disease.

In Dr. Bennett's work, we are furnished with three cases, fully detailed, of decided Consumption, where recovery took place under the use of this remedy. In the appendix to the last edition, he says: "I have succeeded, in several cases, in ascertaining that the caverns have completely healed up, every symptom and physical sign indicating their presence has disappeared, and there has remained only slight dulness on percussion, and increased vocal resonance, as a proof of the puckering and induration of the pulmonary parenchyma attendant on the cicatrix." In proof of this statement, he relates two other cases. The most favourable account that has yet been given of the efficacy of cod-liver oil, is that published in this Journal by Dr. C. J. B. Williams, who states that of 234 cases of which he kept a record, there were no fewer than 206 in which its use was followed by marked and unequivocal improvement. The most numerous examples of decided and lasting improvement occurred in those cases in the second stage, where the tubercular matter was beginning to soften. He has given a full account of eleven cases in the third stage, the results of which may be stated as follows. In one case, a cavity seemed to have healed completely; in five, all the symptoms were removed and recovery took place, but dry cavities remained in the lungs; in one, it seemed probable that the restoration was even more complete; in one case, that of a child, recovery took place, but the existence of phthisis was somewhat doubtful; in one, the advance of the disease was stayed; in one, the patient recovered so far as to marry, but relapsed; and in one, after temporary recovery, the patient died.

From the report of the Hospital for Consumption, it appears, that this remedy has been productive of more good in the treatment of phthisis than any agent yet employed; and the results furnished by a table of 542 cases in which it was given, are highly interesting. The collective results in all the stages show, that in 63 per cent. the symptoms improved; in 18 per cent. the disease was arrested; and in 19 per cent. only, it went on unchecked. The report observes, that when it is recollected that of the whole number treated at the Hospital, the disease was arrested in only 5 per cent., the value of this remedy, under which the disease was arrested in 18 per cent., must be considered very great. Dr. Williams speaks most favourably of the oil in

the second and third stages, observing that, though not less satisfactory in the first than in these, it is slower in its action. This report, however, establishes the fact which we might naturally expect—that the greatest number of cases are arrested in the first stage. In nearly 18 per cent. of the males, and in 28 of the females, in the first stage, the disease was arrested; that is, in 293 cases of both sexes, it was arrested in 23 per cent. It was arrested in 14 per cent. of the cases of both sexes in the second and third stages.

What I have seen in my own practice fully confirms these statements; and in two of the cases which follow, II and III, the symptoms and physical signs showed as hopeless a condition as in any cases of Consumption I have ever seen, and indicated a speedily fatal termination, which, I am persuaded, nothing that we are yet acquainted with, except this remedy, could have averted.

Cod-liver oil has been called a tonic remedy, which it undoubtedly is; but it differs from other tonics, and indeed from most other remedies we are in the habit of giving in this disease, in one important respect, —that we may use it with advantage in every stage, and that there is scarcely any symptom which contra-indicates its employment. In general, the appetite speedily improves, the cough abates, the hectic fever diminishes, and the perspirations are arrested. The patient at the same time improves in colour, and gains strength and flesh. There are very few cases in which the pale oil cannot be taken; and if we begin with a tea or dessert spoonful, and gradually increase it to an ounce thrice a day, on the surface of peppermint water or milk, there are few persons who do not take it with facility, and become reconciled to it. When it causes nausea, naphtha or hydrocyanic acid will usually remove this symptom. We must not, however, trust exclusively to this remedy, but must give due attention to those general indications for treatment which have been pointed out. We should also remove any urgent symptoms, such as cough, by a sedative; and morphia is one of the best, given either in simple oxymel, or oxymel scillæ, where an expectorant is required. Local inflammatory action must also be removed by the usual means. Unless we are thus careful in removing prominent symptoms, and in bringing the digestive organs into a healthy state, so that the oil may be assimilated, we may fail in deriving from the remedy the benefit which it is capable of producing under judicious management. The following cases will illustrate these and some other points bearing upon the treatment.

Case I. *First Stage. Removal of the Tubercular Deposit by Absorption.* Thomas Daly, aged 18, a sailor, was admitted into the Infirmary under my care, on the 1st of October 1849. He had suffered from cough three months previous, but recovered until seventeen days before admission, when he was seized with cough and pain in the left side of the chest. He was pale, emaciated, and weak. His breath was very short, and he had some trifling expectoration, but never had hæmoptysis. The sound, on percussion of both clavicles, was less clear than natural, and below the left clavicle it was decidedly dull. Close to the sternum, and an inch and a half below the clavicle, it had somewhat of the sound elicited from the trachea. In the same spot the respiration was blowing,

and I was at first disposed to think that there might be a cavity; but the absence of gurgling and of purulent expectoration, showed that it was caused by tubercular deposit near the bronchus. There were no rhonchi on either side of the chest; but below the left clavicle the respiration was harsh or bronchial, and the resonance of the voice and cough very loud. Blisters were applied to remove the pain in the left side; and he took an ounce of cod liver oil thrice a day. He improved rapidly; and on the 22nd, he had got fatter and stronger, though he was pale and still had cough. Some dry crackling was now heard below the left clavicle. On the 29th, this could no longer be heard, but respiration was interrupted in the same situation. It was observed, however, that the dulness and bronchial character of the respiration had somewhat lessened. He was now ordered to rub in the iodide of lead ointment upon the upper part of the chest. On the 8th November, he had become quite fat and much stronger, but was still pale. A continuous murmur was audible in the veins of the neck. He still had shortness of breath on ascending the stairs; but the dulness and bronchial respiration had very decidedly diminished, and, in fact, were scarcely perceptible. With the view of increasing the red globules of the blood, the want of which seemed now to be as much the cause of the shortness of breath as the affection of the lungs, he was ordered to take twenty minims of the syrup of the iodide of iron, thrice a day, in place of the oil. On the 20th, he had not only grown fat, but had also acquired so healthy an appearance, that he would scarcely have been taken for an invalid. He still, however, had some pain below the cartilages of the false ribs on the left side, for which he was blistered. He remained in the hospital, and continued the syrup of iodide of iron, till the 14th December, when the presence of tubercular disease of the lungs could scarcely have been pronounced, with certainty, by any one who had not previously seen him.

Remarks. The crackling heard in this case would seem to show that softening was just begining to take place. The removal of the consolidation was chiefly due to the oil; but there can be no doubt that it was also promoted by the inunction with iodide of lead, and by the iodide of iron. I have at present, under my care, a young man in whom the deposit is undergoing equally rapid absorption under the use of the oil, assisted by inunction with iodide of mercury ointment.

Case II.[1] *Third stage, far advanced; abscess of lung pointing externally.* A ship carpenter, aged 36, was admitted under my care in the Northern Hospital, on December 6th, 1848. More than twelve months previous, he had been attacked with spitting of blood, and other pulmonary symptoms which had never entirely left him. He was much emaciated, and had profuse perspirations; he expectorated large quantities of puriform secretion of an offensive odour; and, when he coughed, his breath was insupportably offensive, scarcely less so than in cases of gangrene. The left lung was extensively diseased. There was a great amount of dulness, extending from the clavicle into the mammary region. There was the gurgling of a large cavity below the left nipple. Below the clavicle, there was the gurgling of smaller cavities, as well as the

[1] Condensed from notes, for which I am indebted to Mr. Wall, the House-surgeon.

subcrepitant rhonchus, indicating extensive softening of tubercular matter. There were no decided indications of disease in the other lung. He was treated with mild mercurial aperients, and a sedative mixture for the cough; and as he had much pain in his left side, a blister was applied. On the 11th, cod liver oil was prescribed. Below the left nipple, where the large cavity was found, a fluctuating tumour formed, and was opened on the 14th. When he coughed, air was expelled along with matter, showing that the abscess communicated with the lung. He continued taking the oil till the 23rd, when he was somewhat better; but as it caused nausea it was omitted, and he took a mixture composed of creasote, oxymel of squills, and compound tincture of camphor, with great benefit; the abundant purulent expectoration being much lessened by it. On the 1st January, the cod liver oil was resumed, in two drachm doses; and in a fortnight from that time, he had improved in a remarkable manner, he had gained flesh, and considered himself half-a-stone heavier. His countenance had assumed a cheerful and more healthy appearance, and his skin had become soft and smooth. Though he had some return of the pain in the side, and the abscess was opened more than once, he continued to improve steadily after recommencing the oil. On the 4th of February, he had every appearance of health; the abscess had all but healed, his appetite was good, and the expectoration had almost ceased. There was considerable contraction of the left side of the chest, and a great amount of dulness. The lung had been extensively excavated; but the progress of the disease was now arrested, and instead of the gurgling and rhonchi indicating the passing of air through muco-purulent fluid, there was heard the dry blowing of air passing into empty cavities. On the 16th February, he considered himself capable of following his employment, and left the hospital to go to New York.

Case III. *Third stage, far advanced.* Mr. W., aged 35, was seen by me, on the 2nd of February 1849, in consultation with Mr. Atcherley. The patient had been intemperate in his habits, and dated his illness from about the preceding Christmas. He was much emaciated, and had violent hectic fever. The pulse was above 120, and the perspirations were unusually profuse, continuing during the day as well as the night. He had no appetite, and the tongue was much loaded, but there was no diarrhœa. He was confined to bed, and had considerable œdematous swelling of the ankles—a symptom indicating great debility and an advanced stage of the disease. The cough was unusually violent and troublesome, and the expectoration was brought up with difficulty, and was of a tenacious muco-purulent character. The physical signs showed that the right lung was sound, but the left was extensively diseased. There was a great degree of dulness at the upper part, before and behind, and the gurgling and other signs of a cavity were heard in both situations. Over every other part of the lung, mucous and subcrepitant rhonchi, mixed with sibilant, indicated that extensive softening of tubercular matter was going forward. We resolved to make trial of cod liver oil, though we had little expectation of benefit in a case apparently so hopeless. Counter-irritation, with croton oil, was adopted, the diet was regulated, small doses of mercury with chalk and rhubarb were given, and an attempt was made to stop the perspirations with sulphuric acid. Sedative expectorants were at the same time given, to relieve the cough.

These means were, however, of but little service beyond preparing him for the use of cod liver oil, which he began to take on the 9th February. In a short time he began to recover; and some months after, Mr. Atcherley informed me that he had got stout and well. About the beginning of July, I had again an opportunity of examining him. He had then, for a long time, ceased taking any oil, but was still so stout that I could not have known him. He had at that time a slight return of cough, but had been nearly free from cough or expectoration, until a few days previous. The upper part of the left side of the chest was still dull on percussion, though less so than when I first saw him. Respiration was harsh and blowing, with some sibilant rhonchus, but there was none of the gurgling cavernous rhonchus; and towards the lower part of the lung, the breath sound was natural. The habits of this patient have been so intemperate, that he has not given himself a fair chance of recovery; and when I lately saw him, I did not find that any farther progress towards reparation of the local disease had been made.

Case iv. *Third Stage.* Thomas Alpen, aged 40, was admitted into the Infirmary, on the 21st of June 1849. He had been a soldier more than twenty years, during which he had been ten years in the Mediterranean, three in the West, and four in the East Indies. Three months previous he had been much exposed to wet and cold, in enforcing the collection of rates in Ireland; and this brought on cough and other symptoms of Consumption, on account of which he was discharged from the service as incurable. He was much emaciated, and his whole appearance indicated phthisis. He had hot skin, profuse night perspirations, and abundant purulent expectoration. He had diarrhœa, the tongue was red at the tip and centre, and he had lost his appetite and strength. The physical signs were equally well marked. On percussion, the sound was very dull below the right clavicle. In this situation, there was cavernous respiration, mixed with loud gurgling, arising either from a large cavity, or from several communicating. He took cod-liver oil, in addition to some mixture, to relieve the cough, and improved very speedily under this treatment. On the 9th July, he had gained flesh, and improved in appearance. He had no night sweats, and very little cough or expectoration. The bowels continued rather loose, and the tongue reddish at the centre, but in all other respects he was better. There was loud blowing cavernous respiration, but no movement of fluid in the cavity could now be heard, except when he coughed violently. On the 17th, some astringent mixture was given to check the diarrhœa, and after its removal he improved most rapidly. On the 5th August he looked so stout and healthy, that no one, from his appearance, could have supposed that he had a cavity in the lung, or that he was ill at all. His appetite was good, his tongue clean, his pulse 88, his skin cool, his complexion healthy, respiration easy, no night sweats, scarcely any cough, expectoration scanty and no longer purulent, but consisting of only a greenish-yellow mucus. There was still dulness below the right clavicle, and considerable depression, with dry blowing respiration, and other signs of an empty cavity tending to collapse. The patient felt so well, that he did not wish to remain longer in the Infirmary.

I am prevented, by the length to which this paper has extended beyond

what I had anticipated, from relating other cases, in which equally good effects followed the employment of cod-liver oil. I have also at present under my care several very interesting cases, to one of which I may briefly allude, as I have satisfied myself of the healing of a cavity. The patient has been several months under my care, and has been ill nearly a year, with frequent attacks of spitting of blood. He has had dulness and signs of consolidation of the middle and lower part of the right lung, and those of a cavity towards the lower part laterally. The expectoration has been abundant, purulent, and fetid. The situation might cause some doubt of the cavity being tubercular; but the symptoms and progress of the case cause me to regard it as such. He has been treated according to the varying symptoms; the chief means used being counter-irritation, iodide of iron, and cod-liver oil. The latter disagreed at first; but after several trials it was borne by the stomach, and seemed to be digested, the patient observing, that it no longer "rose on his stomach." Since then, the dulness has diminished, the cough has nearly ceased, the expectoration has stopped, and the signs of a cavity, and of mucous or purulent secretion in its vicinity, have disappeared; while the patient has at the same time become stronger and stouter.

It will naturally be inquired, how far recovery is permanent, in cases where cod liver oil has been used with benefit. The question admits of being answered now; but it will be more fully and satisfactorily replied to, when we have had further experience of the remedy. We have shown that, before its introduction, pathological researches and stethoscopic examination had united in proving that recovery not unfrequently occurred in cases of tubercular disease of the lungs, and was so permanent that the patients afterwards died of other diseases. And I see no reason why it should be otherwise, in cases where the disease is arrested by treatment, than in those where it is arrested spontaneously, except that in the former it may often be more extensive. I have, therefore, no doubt that when the disease is arrested at an early period, the cure may often be rendered permanent; and it has been ascertained by different observers, that it is often so, and even in a few of the more advanced cases. The report of the Hospital for Consumption assumes very properly that, as in some cases under observation the improvement is permanent, it must also be so in many that have not returned.

Consumption will, however, necessarily continue a more or less fatal disease; but the treatment is open to much improvement, and I believe that the close attention which is now being devoted to it, will enable medical men to accumulate proofs of its permanent curability in an encouraging number of cases.

4, Mornington Terrace, Liverpool,
January 1850.

# CASE OF ANEURISMAL VARIX IN A STUMP, AFTER AMPUTATION AT THE ANKLE JOINT.

By WILLIAM CADGE, Esq., F.R.C.S.Eng., Demonstrator of Anatomy in University College, London.

THE following case is worthy of record, less as a pathological rarity, than on account of the clinical instruction it affords.

The patient was afflicted with several complaints besides that which I wish now to describe; but to carry the history of the case through the whole of these, would be not only tedious and unnecessary, but would occupy too much time and space. I shall, therefore, simply select such passages from my case-book, as will complete the history of the disease I desire to illustrate: viz., Aneurismal Varix occurring in a stump, after amputation at the ankle joint.

CASE. G. K., a young man between thirty and thirty-five years of age, consulted the late Mr. Liston, in the spring of 1847, on account of strumous disease of the tarsal joints of the right lower extremity, resulting from a neglected sprain of the foot. There was pain, lameness, and chronic thickening of the synovial membrane. Lateral leather splints were applied; a strong solution of iodine was painted on the part; ferruginous tonics were prescribed; and he was sent to the sea-side. These measures failed to improve his health; on the contrary, abscesses formed and opened, and sinuses were established. The health beginning to give way, he returned to London. The question of amputation was raised; but the previous history of the patient gave rise to some difference of opinion.

A few years before, the patient, then a lieutenant in the navy, had suffered from an attack of pleuro-pneumonia, which ended in phthisis, and threatened to prove speedily fatal. By great skill and care, however, the disease was arrested after it had reached its third stage; and he recovered so far as a patient, having large cavities at the apices of both lungs, can ever be said to recover. At the time when the question of amputation was raised, he was in apparent health; the phthisical symptoms were latent; he had scarcely any cough or expectoration, and was but little emaciated. Under these circumstances, Mr. Liston recommended the operation, as the only means of saving him from a lingering illness and certain death; while the late Mr. Key rather dissuaded him from any operation, on account of the condition of the lungs. The former opinion was acted on, and then another question arose. Was the disease so located as to admit of the performance of Chopart's operation, or was it necessary to go higher and remove the whole foot? This point was settled at the time of operating.

The patient having been rendered insensible with chloroform, administered by Dr. Snow, Mr. Liston, assisted by Mr. Field and myself, first made a transverse incision over and into the astragalo-scaphoid articulation, which was examined by the finger, and found to be rough and scabrous. Chopart's operation was, therefore, relinquished; and it was determined to remove the foot at the ankle joint. With this view, the incision already made was continued upwards, on both sides, to the tip of the malleolus, so as to form a slightly convex anterior flap; the

knife (a strong bistoury) was next drawn across the sole of the foot, from one malleolus to the other. The anterior flap having been raised, and the joint opened and separated, it only remained to divide the tendo Achillis, and dissect out the os calcis from the posterior flap—rather a tedious and troublesome proceeding. The tips of the malleoli were clipped off on a level with the lower end of the tibia, by means of strong bone pliers; two or three small arteries were secured, and, in the evening, I brought the flaps together, with a few sutures and strips of isinglass plaister. Union by the first intention occurred, save where the ligatures escaped; and the stump required no second dressing.

About ten days or a fortnight after the operation, I visited the patient with Mr. Field, during Mr. Liston's illness; and my attention was at once drawn to a swelling over the inner side of the stump, apart from the wound, about the size of a large walnut, red, tender, and fluctuating; in appearance it was an abscess, and I was about to open it; but hesitated, on finding that it pulsated violently at every part. There was also a loud whirring murmur, audible with each beat of the pulse. At first, I doubted whether I had not a false aneurism to deal with; but a more careful examination led to the conclusion, that it was simply an abscess seated over or under the posterior tibial artery; accordingly, I opened it on one side where the pulsation was least violent, and evacuated a quantity of well formed pus; poultices were applied, and in a few days the discharge and swelling disappeared, and the wound healed. The remarkable pulsation and bruit continued as strongly as before. The patient himself was quite aware of the pulsation, but, as it caused no pain or inconvenience, it attracted no further notice. A small sinus formed at the back of the stump, which allowed a probe to enter and pass upwards about an inch. As there was no pain nor tenderness, and scarcely any discharge from it, firm pressure was made over the whole stump, and I put an issue in the arm. The sinus quickly healed, and the whole part became sound and consolidated, and the chest symptoms also were better than they had been for many months. An artificial foot of admirable construction was made by Mr. Gray of Cork Street, and the patient was able to walk several miles daily, with scarcely any lameness; and to use his own expression, he could "go through a quadrille very creditably." The whole weight of the body could be borne without uneasiness by the naked stump; indeed, the case proved, in an eminent degree, the superior advantage of this operation. In January 1849, about fifteen months after the amputation, he fancied that the pulsation was stronger than usual, and that, in addition, there was some swelling of the inner side of the stump. He consulted Mr. Key, who regarded the case as one of false aneurism, and, without giving a positive opinion, hinted at the necessity of some operation: either a fresh amputation, or ligature of the vessel above. This advice caused a good deal of alarm; and, on the following day, I was requested to visit the patient. There were the same pulsation and bruit, both somewhat increased in intensity, as had existed a year ago; but there was also—what had not been before noticed—a pretty distinct elastic swelling, about two inches long and of two fingers breadth, over the inner side of the stump. Every part of this swelling pulsated forcibly, and the loud whirring murmur could be heard at some little distance. When the

posterior tibial artery was compressed above, the pulsation ceased, and the tumour became flaccid; and both returned when the finger was removed. What was the nature of this swelling? That it was aneurismal, there could not be a doubt: if it was a common false aneurism, then it had existed at the time of the operation, or very shortly after; but the progress, during the interval, had been very unlike that which usually obtains in false aneurisms.

I advised him not to submit to any operation for the present, both because of the long duration and uncertainty of the nature of the disease, and because he was doubtful whether the swelling was undergoing any increase in size. I proposed that he should refrain from using the stump for a time, and permit me to attempt a cure by means of pressure, both on the swelling and on the artery above, by two of Signorini's tourniquets. Should this plan fail, and the swelling increase, it would then be time enough to decide what operation to perform; but if no increase in size occurred, firm pressure should be made on the whole stump with an elastic bandage, and he should continue to use it.

On the following day, Mr. Fergusson met Mr. Field and myself in consultation, and fully concurred in the plan of treatment by compression; and it was, accordingly, commenced at once. While we were applying the tourniquets, the patient complained to me of constipated bowels. The usual purgative medicines were prescribed, but without the usual effect; stronger medicines and injections were ordered, but no evacuation could be procured. Pain, flatulence, and distension of the abdomen ensued; and, in a day or two, it became evident, that there existed some internal mechanical obstruction, but at what particular part, there were no signs to indicate. I need not describe in detail the progress of this unfortunate case; suffice it to say, that all our remedies were unavailing. The abdomen grew immensely distended, and the patient died, eight days from the commencement of the attack.

*An anatomical examination* was made thirty-six hours after death: and the abdomen was first examined. The obstruction was seated in the sigmoid flexure of the colon, close to the rectum, where it was so twisted as completely to close the canal. This part of the large intestine was of greater length than usual; and, instead of making its ordinary curve in the iliac fossa, it reached upwards as high as the xiphoid cartilage, where it doubled on itself, and returned to end in the rectum at the margin of the pelvis; this coil was of amazing size, resembling the stomach when distended. The mucous membrane, for some distance above the obstructed part, was of a purple colour, very soft, and easily raised; the cæcum and colon were much distended; the small intestines were empty; the diaphragm was pushed up to a level with the upper border of the third rib on the left side, and fifth on the right. I have, in one instance before, discovered the sigmoid flexure of the colon to be of inordinate length, reaching nearly to the right iliac fossa; and Dr. Yelloly[1] has given numerous instances of the same kind. He regarded it as a natural conformation, and not, as Dr. Wells thought, the result of disease; in the present case it seems most probable that it was the cause, and not the consequence, of the obstruction. The lungs were adherent

[1] Edinburgh Medical and Surgical Journal, No. 64, p. 476.

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to the parietes of the chest at every part, the connecting false membrane being at some places fully a quarter of an inch in thickness and as tough as fibro-cartilage. There were large dry cavities in the upper lobes of both lungs, surrounded by dense non-crepitous lung, which sank in water; the lower lobes were healthy, and contained not a trace of tubercle in any stage. I was permitted to remove the stump about six inches above the extremity; and, some injection having been thrown into the arteries, a careful dissection was made.

The first thing which attracted notice was, that the two companions veins of the posterior tibial artery were filled with injection. On tracing the artery downwards, a large branch, probably the internal plantar, was found to arise from it at the inner side of the stump; this branch, about the size of a crow-quill, ended, within a quarter of an inch from its origin, in a bulbous enlargement, about the size of a horse-bean, which communicated, by means of a large short branch, with the posterior tibial vein, and thus formed an Aneurismal Varix. The tibial artery and veins were continued onwards to about the centre of the lower end of the stump, where they ended abruptly, being of full calibre to their termination; there was no distinct tumour of any kind. In the leg, the vessels were bound down deeply by the strong fascia which passes between the tibia and fibula; close to the ankle, this fascia had been interfered with by the operation, and the vessels escaped from beneath its lower border and mounted over the root of the inner malleolus, separated from the bone by the bulbous extremity of the tibial nerve; and thus at this point, where the Varix existed, they were close beneath the skin, and both artery and veins beating strongly, gave the elastic feel and appearance of defined swelling, which had been mistaken during life for the sac of a circumscribed false aneurism.

The dissection of the stump showed how well adapted it was to bear pressure. The plantar fascia, where it had been cut from the os calcis, had become attached to the tendo Achillis behind, and in front, to the cut ends of the extensor tendons; between it and the lower end of the tibia there was merely some reddish loose cellular tissue; but, between the fascia and the skin, there was a great thickness of dense granular fat, much more than is usually found over the heel, and this not only served as a most efficient pad, but also reduced the difference in the length of the two limbs to less than two inches.

Remarks. The diagnosis of Aneurismal Varix from circumscribed false aneurism, is generally clear and plain; and it may be thought that in this case the true condition of the parts ought to have been appreciated. But a little consideration will show, that the differential signs were few and imperfectly marked, while all the symptoms of false aneurism were present, viz., a pulsating tumour, situated in the course of an artery, apparently slowly increasing in size, and attended by a marked bruit as the blood flowed into the supposed sac,—the pulsation, swelling, and bruit, all disappearing when pressure was made on the vessel above, and returning when the finger was removed. That which tended most to throw a doubt on this view of the case was, that whatever the true nature of the disease might have been, it had existed upwards of a year, and the increase in size of the tumour, if indeed it enlarged at all, was very slow,

and wholly unlike the usual behaviour of an aneurism. This slow progress and long duration led me to recommend the patient to pause before submitting to any operation; and I need scarcely say, that the dissection has shown that, in all probability, no surgical interference would have been necessary, had he continued to live.

The unprecedented occurrence of Varix in a stump contributed not a little to mislead the diagnosis. Since the first discovery of the disease by Dr. W. Hunter, in 1757, the records of surgery contain numerous cases, showing that it may occur in various parts of the body besides at the bend of the elbow; thus, the carotid, subclavian, temporal, radial, femoral, and popliteal arteries, have all been the seat of Varix; and Mr. Syme[1] has met with a case of varicose aneurism of the aorta and vena cava, which occurred spontaneously. Next to the bend of the elbow, the most frequent situation of Varix is the thigh, between the femoral artery and vein, and it is generally produced by the sudden closure of the thighs to catch a falling sharp instrument, the point of which passes between the artery and vein, wounding both. Mr. Liston[2] has described a case of this kind, which I had an opportunity of examining; there were varicose veins and ulcers of the leg, and a tumour on the front of the thigh, caused by venous dilatation, thrilling pulsation, and loud systolic murmur, together with weakness and numbness of the whole limb. Firm pressure from the toes upwards diminished the pulsation and reduced the swelling, and no operation was required.

I have, however, met with no instance of its having occurred in any part of the body as a consequence of amputation, and it is not easy to understand how it was brought about in this particular case. Most probably, the point of the bistoury passed between the artery and vein, wounding both at the point where they lay in apposition. The communication thus established at the time of the operation, would require but very little pressure to prevent all outward hæmorrhage, and this was afforded by dressing the stump.

It was remarked by Dr. Hunter,[3] that in Aneurismal Varix at the bend of the elbow, while the pulse at the wrist was weakened, the brachial artery was enlarged and dilated; this he attributed to the diminished resistance to the circulation from the aperture in the artery, which had almost the same effect as if a branch as large as the opening had been added. Mr. Hodgson explained it by saying, that as part of the blood was diverted from its usual course, it was necessary for the artery above to enlarge and carry more blood, in order to keep up the nourishment of the lower part of the limb; the former is the law, and the latter its application. The case I have described affords a negative proof of the correctness of these explanations, as there was no limb below the point at which the Varix existed, so there was no necessity that the vessel above should dilate; accordingly it was found, on dissection, to be of ordinary calibre.

University College, January 1850.

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[1] Syme. Edinburgh Medical and Surgical Journal, No. cviii, p. 104.
[2] Liston. Elements of Surgery, p. 676.
[3] Hunter, Dr. Wm. Medical Observations and Inquiries, vol. ii, p. 390.

# CASE OF LACERATION OF THE VAGINA AND UTERUS,

REPORTED BY MR. THOMAS MORLEY ROOKE:

WITH REMARKS AND THE SUBSTANCE OF A CLINICAL LECTURE

By JOHN C. W. LEVER, M.D., Physician-Accoucheur to Guy's Hospital.

CASE. S. B., ætat. 28, is a married woman, and has been so for six years. She has had three children; she was confined of the first, ten months after marriage; it was still born; the labour was lingering, but she recovered well. The second child was born at the end of about another year, and lived fourteen months; and the third, a boy, after about the same period. He is still living, and is a healthy child, about two years and eight months old. She has not since given birth to any child up to the present time, and has never had any abortion. Her last confinement was more lingering than the previous one, where the child was a girl. She is a woman of rather short stature, fair, and of tolerably florid complexion. Her husband is a labourer, and she follows the occupation of a sempstress; but for the last few months she has had little to do, and in consequence of her husband being frequently out of employment, she has not lived well, eating chiefly fish in the way of animal food. She has never had any serious illness, but is now pregnant with her fourth child; and, for the last ten months, has complained of a severe dragging pain in the abdomen and back, to which, however, she has not attached the slightest importance, and, when requested to have advice, she has been averse to it.

At a quarter before three, A.M., on the 16th, I arrived at her house, having been summoned to attend her in labour, and seeing her then for the first time. I found her laid on the bed, with severe expulsive labour-pains. On inquiry, I understood that the membranes had ruptured half an hour previously, that she had had vigorous bearing-down pains since one o'clock A.M., and that the first stage of labour had been going on all the previous day. On examination, *per vaginam*, I found the os uteri fully dilated, and the head presenting at the upper part of the vagina, and looking backwards towards the sacrum. Under the pains it rapidly made the turn of the axis, and appeared in about half an hour in the cavity of the pelvis, in the first position. A short time before my arrival, she had both defæcated and passed urine. The pains continued at intervals of every two or three minutes, and there seemed, at first, every probability of a speedy termination of the labour; the pains were now not only strong and straining, but seemed almost of an agonizing and torturing character—at least I thought more so than I had hitherto witnessed in my limited experience. The head advanced somewhat further during the next half-hour, so that the scalpy tumour which had formed on the head of the child could be felt little more than half an inch within the labia, and the soft parts became all freely dilated. The pulse was now full and quick; a small quantity of fæces was squeezed out of the rectum during the advance of the head; but from this time, the head seemed to make no progress, though the pains continued in nearly full force. On several times examining, during the next two or three hours, I could detect no advance of the head during the accession of a pain, or recession of the head during the decline and intervals

of pain; it seemed very firmly fixed between the bones of the pelvis. About seven o'clock, A.M., the woman rather suddenly complained of a peculiar pain, unlike anything which, she said, she had ever felt before; she described it as a severe scalding or burning pain in her belly, extending up to her chest. This (by no means unimportant, when taken in conjunction with the after symptoms) considerably impressed me at the time, though not in the greatest degree, as we frequently hear women complain during labour of sudden peculiar pains, which, they say, they have never before experienced, but which do not prove to have any serious connexion. The pains, however, continued; but from this time, or a little before, they began to occur less frequently, though still of considerable force; they perhaps now occurred (*i. e.*, during the first half-hour of the decline) every five or six minutes, instead of every three. At the same time, the pulse, I thought, began to get smaller and quicker; and, on making a vaginal examination, the finger was smeared with blood, not, however, more than was to be accounted for. I now became more impressed than ever, that this was no common case; and at half-past seven, sent a note to Mr. Assaid requesting his attendance, briefly stating the character of the labour, viz., the time it had lasted, the great severity of the pains, followed by their decline, and, from some cause, the appearance of exhaustion commencing in the patient; and that I considered the chief peculiarity consisted in the immobility of the head during the pains. Mr. Assaid arrived about a quarter past eight, when I detailed to him the particulars; he instituted an examination, and considered the pelvis of tolerable dimensions, and the head of the child of normal size. For the last half-hour before he arrived, the pains had rapidly subsided, and were now all but gone, and the patient remained much more quiet; she had vomited five or six ounces of a dark greenish liquid. Mr. Assaid considered that, after all, nature would be found equal to the expulsion; that the present condition was one of uterine inertia, and that, if temporarily stimulated by the administration of secale cornutum, nature might resume her powers, and labour be completed. At any rate, it was better to make the trial before having recourse to instrumental aid, especially as she had not been long in labour, and had already become the mother of three full-grown children, born by natural efforts; at the same time, he was of opinion, that if symptoms of exhaustion continued, brandy should be judiciously administered. Accordingly, thirty minims of the ethereal tincture of ergot were given; this produced a few sharp pains, but they did not continue; a second dose was administered at the end of half an hour, but this produced no effect, and she immediately vomited a large quantity (perhaps a pint) of dark grumous fluid; she complained of thirst, and was supplied with tea, and brandy with it. In another half-hour, she again vomited the same quantity, and was given some more brandy; this was about ten o'clock; exhaustion, however, was not then very great. At her request, she was allowed to get up, and, with assistance, took a turn or two in the room; she laid down again, and now exhaustion rapidly increased. She began to complain of dimness of sight, and of seeing objects double.

In the interval, Mr. Pettigrew had been applied to by Mr. Assaid, and he soon arrived. He considered it a case of laceration of the womb, or

of the parts adjoining, and immediately proceeded to the further administration of brandy, to cover her with warm clothing, and to endeavour by some means to rouse the vital powers before applying the forceps, so as to have a greater chance of securing contraction of the uterus and the prevention of subsequent hæmorrhage. The catheter was also passed, but no urine escaped. Towards twelve o'clock, she was rather revived, and professed to feel better, although complaining at intervals of the sharp pain in the belly, and saying if it were not for that, she could go to sleep. A drachm of laudanum was then administered; she was gently moved to the edge of the bed, and the proper preliminaries having been arranged, and an attendant being stationed to apply pressure to the uterus, and follow it down during the gradual withdrawal of its contents, the forceps were then applied by Mr. Assaid, and the head slowly extracted. The whole delivery was performed slowly, partly with the hope of more surely ensuring contraction, by the gradual emptying of the uterus, and partly, to give as little fatigue as possible to the patient. The child was dead—it appeared as a large male, with a full-sized head; the uterus was felt contracting under the hand during the delivery, and it remained so afterwards. The placenta easily came away, by slight traction on the cord; delivery was completed at half-past twelve. The child had a livid hue, and the placenta contained venous-looking blood; very slight hæmorrhage followed the birth. A broad bandage with a firm and thick pad over the uterus was immediately applied round the abdomen, and half a drachm of aromatic spirits of ammonia, with twenty minims of tincture of opium, were administered, but the patient was evidently sinking. The abdomen now, as it did, though in a less marked degree, before delivery, gave evidence of its containing fluid of some sort; the pulse was no longer perceptible at the wrist. The patient complained of greater dimness of sight, of ringing in her ears, and that her breath was getting shorter, which indeed it was; her countenance wore a shrunken and anxious expression, her extremities were getting cold, she once or twice raised herself up on the bed, gave a vacant and rather wild stare around, and as suddenly dropped again. She refused everything offered her to swallow, but she replied coherently and intelligibly when spoken to, and offered some voluntary remarks. She once more complained of a racking pain in her stomach, and now being soon afterwards asked (as she had previously wished it) if she would like to see her little boy, she rather feebly and dreamily answered, that she should. When he was brought, in two or three minutes, to her, her eyes were feebly opened, but the film of death was on them; a slight expression of recognition played for an instant over her features, and as quickly passed, but she did not speak; and now, evidently, unconsciousness supervened, the intervals of respiration became longer and longer, and in five minutes life was extinct. She died at 1 P.M., half-an-hour after the completion of delivery.

*Post-mortem examination, twenty-four hours after death.* The whole surface of the body was very pale and wax-like; the mammæ were well developed and enlarged; the abdomen much distended (more so than immediately after death); the pelvis externally seemed of normal size. Over the front of the legs, a few dark purpurous spots were perceived, which could scarcely have been produced after death, as they

were uppermost as the body was laid. On incising the abdomen, a layer of fat, half an inch thick, was found beneath the integuments, but the muscular parietes were thin. On opening the peritoneum, we found the cavity almost filled with blood and clots, of which it must have contained half a gallon. The uterus appeared well contracted at its fundus; but lower down was discovered a *rent*, commencing towards the left side of the posterior wall of the vagina, immediately below the os uteri. It at first ran almost transversely across the vagina, separating it from the uterus, then obliquely upwards to the right side, through the muscular and serous parietes of the uterus for two or three inches, and continued on to the right broad ligament, through the serous coat only; the whole rent was nearly seven inches in extent. The right ovary contained a well-formed corpus luteum; the left was very small, and apparently atrophied. As regards the bones of the pelvis, the promontory of the sacrum was sharp and prominent, and the tuberosities of the ischia rather near together; but the pelvis was by no means too small for the safe expulsion of the child by natural efforts, had everything else been favourable. There was no appearance of inflammation having existed in the uterus. Different parts of its serous surface had, certainly, a bright rose-coloured tint, as had other parts of the peritoneal sac, but not more, it was supposed, than was explicable from post-mortem changes. The spleen was small, the bladder was empty and somewhat mottled. The kidneys were rather large; and on stripping off their investing tunic, a number of small white spots were perceived, which were imbedded in the secreting structure; this seemed like the lymphic deposits of inflammation at some former period. Owing to the presence of friends, the remaining viscera of the abdomen, and those of the chest, were not examined. T. M. R.

Remarks. The previous history of this patient demands some notice. She had given birth to three children; her first labour was difficult, and the child still-born; her second child was born alive, and lived fourteen months; the third, a boy, is still living, and was expelled after a lingering labour. Multiparæ are more liable to suffer from laceration of the uterus and vagina, than are primiparæ, this accords with the experience of all writers on the subject; thus Dr. Churchill, at p. 357 of his work *On the Diseases of Pregnancy and Childbed*, gives the result of seventy-five cases quoted from different authorities, and, of this number, but nine occurred in the first pregnancy; of the nine cases recorded by Drs. Hardy and M'Clintoch, all were multiparæ. I have myself seen but two instances in which this serious lesion occurred in primiparæ; in one, there was intense agonizing and irregular uterine contraction, unrelieved by bleeding or opium; in the other, there was disease of the uterus itself, This woman's constitutional powers were also very feeble; the husband had but occasional employment; and, to increase their means of subsistence, she had recourse to the badly-paid occupation of a sempstress; but, notwithstanding she had fared so badly, the child was of full size—in fact large and well developed. It has been recommended by some of the older writers on midwifery, where there exists but a slight diminution of the natural size of the pelvis, to keep the mother on a small allowance of food during the last weeks or months of gestation,

in order that the child may not be so well nourished, and, therefore, unable to attain a size which might render the labour tedious or difficult. In several instances this has been experimentally tested; but, although the mother has suffered and become attenuated under the diminished diet, the development and nourishment of the child has not been interfered with. For two months prior to her labour, this patient had been complaining of dragging pain in the abdomen and back, but which could not have been very distressing, as although she might, with but little trouble, have had advice when recommended to do so, she refused. In my opinion, these pains were due to the dragging and weight of the gravid uterus, and altogether distinct from those pains which sometimes are found in pregnant women, and which depend upon a diseased state of the uterus itself, resulting in alteration of the tissues, and frequently terminating in ramollissement; or from those which usually attend the various forms of placentitis, and which are followed, more or less, by adhesion of the placenta to the walls of the womb. Labour appears to have been established at one o'clock, A.M., on the 16th; in one hour and a quarter, the membranes ruptured; and at a quarter to three, when Mr. Rooke saw her, he found the os uteri fully dilated, and the pains vigorous and bearing down; the head, which presented quickly, passed into the cavity, and the attendant was led to hope a speedy termination to the labour; but the pains assumed a new character, they became "agonising and torturing", and yet they served to advance the head, so that the scalpy tumour was not more than half an inch within the labia. From this period the head seemed to make no advance, neither advancing during pain, or receding during its remission. Matters continued much in the same state until 7 A. M., when the patient expressed herself as feeling a pain, which on previous similar occasions she had never experienced; she described it as "severe, scalding, burning", extending from the abdomen to the chest. This symptom deserves some notice, for I have rarely seen laceration of the uterus occur without a cramping or burning pain, with a degree of local tenderness in the abdomen, having preceded the lesion. Dr. Douglas is emphatic in his injunction for us to be on our guard for rupture, when such pain is suddenly complained of. From this time, the pains declined, not suddenly, as in many cases of rupture, but gradually; at first five or six minutes' interval took place between them instead of three. If the whole of the uterine tissues had been at first involved, if the rupture had implicated all the parts of the cervix or body, then, according to my experience, there is in the majority of cases a sudden cessation of uterine contraction; but this symptom does not hold good in all cases; for I have seen the child expelled by natural efforts, even when it was known by examination, and by other symptoms, that rupture had occurred. The alteration in the state of the pulse must also be noticed: at first, it was full and quick; when the lesion occurred, it became small, rapid, and thread-like; and just before dissolution, or rather soon after her delivery, it was imperceptible at the wrist. This alteration in the state of the pulse is usually found in cases of ruptured uterus and vagina, but it is also present where there exists laceration of any important internal organ. I have known it present, where a large ovarian abscess burst, and emptied its contents into the peri-

toneal cavity, during the progress of the expulsion of a premature child. When Mr. Rooke passed his finger to ascertain the progress of the labour, he found it stained with blood, but to not such an extent as to surprise him; and yet the quantity of blood poured out from the laceration, as gathered from the results of the post-mortem examination, was very great. Where lacerations of the vagina or uterus take place, one very frequent symptom is the discharge of fluid blood; but as in this case the head was fixed in the pelvic cavity, the blood found more ready ingress into the peritoneal cavity than egress through the vagina. That fluid was collecting within, was ascertained before delivery, and was rendered much more evident after the uterus was emptied; and this is not surprising, as the quantity of fluid and coagulated blood was estimated at half a gallon. Recession of the head, is generally another diagnostic symptom of rupture; here it was not, as the head was seated low down in the cavity of the pelvis. Vomiting is also a distressing but marked symptom; and here the fluid rejected was of a dark grumous character like coffee grounds. The vomiting of fluid of this character during the advanced stage of labour, is always to be reckoned as a grave symptom, especially if attended with symptoms of exhaustion. I have never seen a case of rupture of the vagina or uterus without it, but I have known it occur in labours which have terminated happily; but then it has not been accompanied by other symptoms, which usually attend this serious lesion.

Mr. Rooke, seriously impressed with the gravity of his case, requested the advice and assistance of his colleague, Mr. Assaid. This gentleman, taking into consideration that the patient had given birth to three full-grown children, and that the pelvis was not seriously abbreviated, was disposed to regard the case as one of uterine inertia, and was of opinion that, if by means of general and specific stimuli the system could be roused and the uterus excited to contract, the case might be terminated by natural efforts. To effect these purposes brandy was given, and the ethereal tincture of ergot was administered; the exhibition of the latter was followed hy the production of three or four sharp pains, but their continuance was brief; a second dose was administered—no pain resulted, but vomiting occurred Even at this time, the symptoms betokening exhaustion were not very great; yet the gentleman in attendance, doubting the issue of the case, sought the advice of the surgeon-accoucheur. Before the arrival of this gentleman, at the earnest entreaty of the patient, she was permitted to rise from her bed, and supported to walk up and down the room; this was quickly followed by aggravation of all the symptoms. It is at all times most difficult and painful to withstand the entreaties of the patient and her friends; the sense of constriction of the chest, the desire to breathe more freely, the feeling of oppression, the sensation of sinking, lead the patient to implore change of posture, to sit up, to stand, to walk; anxious relatives and watching friends join most energetically in the appeal; but such must not be conceded, for exhaustion will be developed more speedily, and death take place more quickly. It was so in this case; the alteration of position was speedily followed by dimness of sight and double vision; and when Mr. Pettigrew arrived, he readily suspected and diagnosed the character of the lesion. He wisely resolved to endeavour to rouse the vital powers

before attempting to deliver, by the administration of brandy, the application of warmth, and other similar means. About twelve o'clock, she had revived to a certain extent; opium was administered, the alteration to the proper position was slowly and cautiously accomplished. This is of great importance; we should, especially, be careful to keep the head of the patient lower down even than the shoulders. Due precaution was taken to secure the contraction of the uterus according to its diminishing contents, the forceps were carefully applied, traction was cautiously made, and the child slowly withdrawn. In rupture of the uterus, there are three modes in which delivery may be completed: firstly, by turning; secondly, by the employment of the forceps; and thirdly, by the use of the perforator. The first is only applicable to those cases where the head does not occupy the pelvis, or where it has receded; the forceps may be applied in cases where the head has not receded, and where there is no material abbreviation of the pelvic dimensions; yet, in the application of the blades of this instrument, great care must be had lest the child be forced to recede; thirdly and lastly, if the perforator be employed, the opening into the skull must be made gently, and not with so much force as in cases of locked or impacted head, lest it should also recede. In this case, the forceps were applied with tolerable facility; and the wisdom of the selection of this mode of delivery is shown by the sequel. But little difficulty was experienced in the extraction of the placenta; and in but one case that has fallen under my notice, have I had any trouble in the extraction of the secundines. In this solitary case, the placenta and its membranes escaped into the peritoneal cavity; and the difficulties in its delivery, with the feelings attendant thereupon, may be more easily imagined than described. There is one symptom which I have already alluded to, but which deserves a further remark, viz., the sensation of fluctuation in the abdomen, coming on and gradually increasing during labour. This could not have been ascitic fluid, for there was no evidence of its existence at the commencement of labour; if it were the contents of a cyst or abscess, its quantity after evacuation would not have been increased. Taking into consideration the time when it first evidenced itself, its gradually increasing quantity and its attendant constitutional symptoms, the gentlemen in attendance very rightly supposed it to be due to the effusion of blood. Large as the quantity was, it was not larger than might be expected from an examination of the parts after death. The symptoms following delivery were those to be expected; exhaustion became greater, dimness of sight and ringing in the ears supervened, her countenance became pallid and anxious, the extremities became cold, but coherence remained; she could answer questions as well as make voluntary remarks, and her last but momentary act of recognition, was bestowed on her only child. I have often observed that in the majority of these cases, where death takes place quickly after the lesion, consciousness persists to the last. It is unnecessary to recapitulate the necroscopic appearances, except as far as relate to the pelvis, vagina, and uterus. The promontory of the sacrum was sharp and prominent, the tuberosities were slightly approximated, but the pelvis was by no means too small for the safe expulsion of the child by natural efforts, although it must be remarked that the child was a male and its

head of full size. The laceration separated the posterior wall of the vagina from the uterus; then, running obliquely upwards to the right side, it divided the muscular and serous coat of the uterus for two or three inches, continuing to the right broad ligament, implicating only the serous coat; in its course it laid open several large sinuses, and hence the quantity of blood effused, which so speedily terminated this poor woman's life. On careful examination, there seemed to be no previously existing morbid lesion, produced by inflammation, or other cause, such as is found in the majority of cases of this fearful complication. I am inclined to suppose, that from the pressure of the tightly fitting head on the soft parts, the structures of which they are composed became infiltrated with serum prior to the laceration; that the lesion at first was small, but gradually increased until it assumed the fearful size that post-mortem investigation revealed.

Wellington Street, Southwark,
January 1850.

## BIBLIOGRAPHICAL RECORD.

A Few Suggestions on Consumption. By Robert Hull, M.D.; Extra-Licentiate of the Royal College of Physicians; Physician to the Norfolk and Norwich Hospital. Pp. 138. London: 1849.

Dr. Hull informs us that his object in publishing this little book, is to "deprecate and supersede mischievous agents" in the treatment of Consumption: a very laudable intention, in the following out of which, a good work *might have*, we wish we could say *has*, been written. A careful investigation of the physiological and therapeutic actions of the various remedies which are ordinarily employed, or have from time to time been recommended as our weapons against this insidious, and too often death-dealing foe, would be a boon of great value; and had Dr. Hull even made an attempt, however imperfect, to furnish us with such a gift, we should have thanked him for it, and cheerfully awarded the praise due to all who labour heartily with right efforts to advance our real knowledge. But he has done nothing of the kind. We meet with strong words and dogmatic assertions in abundance; but *proofs*, such as we might expect, based upon anything like substantial foundations, exist not in his pages. For instance, *opiates* are Dr. Hull's favourite aversion—*ex opiatis, tanquam à peste, fugiendum est*, is a quotation more than once repeated. "Opiates, I cannot repeat too often, are lethal," he says, near the close of the book, and the same dogma is asserted and re-asserted continually throughout it, but there is no attempt to *demonstrate* its truth; and, with amusing inconsistency, he recommends morphia when hæmoptysis occurs! Let any of our readers consult the recent report of the Hospital for Consumption at Brompton, as to the relative frequency of this symptom, and then say how many patients would escape the administration of this *lethal* remedy? "In hæmoptysis," he says, p. 61, "according to the degree of cough, opiates must be given, lest the succussions of cough should burst afresh the vessels, or open fresh vessels not already burst." But at p. 66, in commenting upon a case we are told that—"Thaulius displayed this peculiarity in the treatment of himself, that he rode on horseback more often and more violently during his protracted and copious bleedings. In fact, he despaired of his life, and he rode with desperation. Whether *this* horse-exercise, or Dr. Elliotson's turpentine, saved him—who shall decide? *He* thinks the turpentine; I am disposed to believe in the horse." How shall we reconcile these discrepancies of the author?

Dr. Hull's treatment of phthisis is simple enough;—avoid physic, especially what he is pleased to denominate *bee-hive* medicines,—"ride, eat, and drink, like bagmen!"—do this, and, upon Sydenham's authority, salvation is promised to our invalids (p. 16). Here is a case in point.—"Uranius, a young gentleman, aged fifteen, consulted me in the autumn of 1845. He displayed all the external signs of the phthisical frame. And he gave proofs of an ample cavity in the apex of the left lung, and of a smaller excavation in the summit of the right; the pulse ranged to 120. The liver was very torpid, and the alvine excreta drab-coloured. The father of this patient, a gentleman of masculine sense, was quite ready to send his son, on medical authority, to the South of France, or to Spain, to Italy, or Malta, to Madeira, or anywhere. I told him of the uselessness of such inconvenient expeditions; and he chose that his son should not be banished. I directed attention to the *liver*, prescribing dandelion internally, and baths impregnated with nitro-muriatic acid. That the diet should be generous, of milk and solid animal food, of malt liquor. That no pectoral drugs, nor *opiates*, should be given. That, if the cough disturbed by night, free potation of porter, which is somniferous, should be preferred, medical sedatives excluded. That the patient should expose his lungs, his body being warmly clad, to the air. He resided in the northern part of Norfolk, and he rode daily on horseback to the sea-

shore, distant seven miles. At Christmas, his pulse being quick as ever, the sputa were puriform, very offensive, and copious; the gurgling in the cavities was remarkable as ever, and emaciation was extreme. Profuse perspiration at night. It seemed that death could not be very distant, but he persevered in his course. In the month of May, he presented himself to me, fleshy as he had ever been, in buoyant spirits, in juvenile strength. On stethoscopic examination, all cavernous symptoms were gone." (p. 15).

Truly, this is a marvellous case,—large cavities at Christmas, all physical signs of their existence banished by May! Well may Dr. Hull say, that nature "healed all breaches with triumphant energy"!

But the worst feature in the book is the spirit in which Dr. Hull reviles all treatment but his own, and the accusation he brings against his professional brethren, of systematically destroying their phthisical patients. The following quotations will illustrate this point: "There is a complication in the menacing, incipient stage of phthisis in young women, which very often occurs; *amenorrhœa*. And this is occasionally a lucky symptom for them. Their own minds are ever impressed with a conviction, that this irregularity is the sole cause of all their ailments, debility, dry cough, shrinking. And, if their family surgeon takes the same view, they have a good chance of recovery. If this uterine torpor did not co-exist, then phthisis would be diagnized [*sic*], and the usual routine of blistering plasters, leeches for pains, merely muscular, of foxglove for quickness of pulse, would be instituted, and the usual result would occur. But, fortunately, the surgeon himself does now and then look on this functional effect as the efficient cause. And, as *this* disorder is notoriously cured by tonic medicines, good diet, pure air, and horse-exercise, so these are hopefully prescribed; and cough, rapidity of pulsation, thinness, all vanish. The young lady is cured of commencing phthisis when she was occupied with a different idea. She has had a narrow escape." (p. 46).

This is bad enough, but our author speaks even more plainly elsewhere. "Is it so clear that the cold and cough, which end in phthisis and the early grave, are so abstractedly fatal? As I live, I believe that numberless cases are lethal, through medical meddling." (p. 40).

"Let people themselves see the simple logic of the question. If mankind are not one whit the better for being physicked and *narcotized* year after year, century after century, is it not high time to suspect that the very physic hath caused this wretched stationary state of things? Almost every other malady hath confessed the power of medicine; is it not time to believe that phthisis is not to be healed by medical *art*; that art has paralysed nature; that the purveyor of animal food, the brewer, the wine merchant, are most probably the best physicians; that the *non-naturals* are after all the natural means of prevention, of cure? That if nature were incompetent, which the meddlers assert or imply, which is by no means whatever proved, art is not less feeble; that art is even pernicious, shortening days which might have been prolonged; exasperating existence, which nature would have soothed; nay, often curtailing life, which might have reached the allotted span. Most implicitly do I believe that, while some few cases of decline may have been cured, under the routine treatment, not *by* it, the huge mass of phthisicals is prematurely despatched. That if, from the first consumptive down to the last victim, art had abstained with respectful diffidence, the human race would have been less decimated, by millions."

We are no drug-fanciers, nor is it to our interest to make our patients swallow unnecessary physic; and therefore we do not belong to the category of those "chatterboxes" with "long tongues *unscrupulously* used," from whom Dr. Hull anticipates opposition to his views; but we do most strongly protest against such wholesale condemnation of all medication; and we can assure the author that, if he had written in a different spirit, and with more cautious language,—if he had given others credit for honesty of purpose and soundness of

judgment; and had not misrepresented the generally received practice, endeavouring to make the public believe that it is essentially lowering in its character, when as he must, or ought to know, the highest and most generally followed authorities insist strongly on the necessity of supporting the patient's strength; he would both have written a better book, and have secured a more attentive consideration for the sound advice which he does sometimes give.

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On the Operation for Strangulated Hernia. By H. Hancock, F.R.C.S. Eng. pp. 94. London, 1850.

The subject of Hernia is a battle-ground, on which many knights are ever ready to break a lance in defence of the most opposite and conflicting opinions. The champions for the various modes of practice are pretty equally divided in number, and very fairly matched. If a Petit, an Aston Key, and a Bell, opposed the opening of the sac, the opposite proceeding has been advocated by a Dupuytren, an Astley Cooper, and a Lawrence. Mr. Gay has, in a recent work, enlisted himself under the banners of the three eminent surgeons first mentioned; and in the work before us, Mr. Hancock has come forward to do battle with Mr. Gay and all other comers, not only on the point mentioned, but on others scarcely less important.

The first question, then, on which Mr. Hancock joins issue, is that of the propriety of laying open the hernial sac; and if ever the oft-quoted remark of the squire of the knight of La Mancha was applicable, it is so to the case in point. Much may, indeed, be said on both sides; and, though with such conflicting evidence as can be adduced, we must decline attempting to adjust the balance, we shall not shrink from expressing our opinion.

There can be no question, that the opening of the sac enables the operator to obtain much important information which could not be gained in any other way. It is no small matter to be in the dark as to whether the intestine be healthy, ulcerated, inflamed, or gangrenous; whether adhesions confine it to any part of the sac; whether the omentum be healthy, or otherwise; what is the condition of the sac, the number of protrusions, and, above all, the precise seat of stricture. To learn all this with certainty, we must open the sac; and when we consider the knowledge derived from that proceeding, we certainly think the advantages more than counterbalance the objections. We do not pretend to say, that an incision into the peritonæum is a trifling affair; but we certainly think, with Mr. Hancock, that its danger has been exaggerated. We have strongly impressed on our minds certain cases we have witnessed, in which the most unexpected complications were discovered on the sac being laid open;—complications which were not suspected, and which would have killed the patient had they not been brought to light.

A remarkable illustration of this is afforded in a case communicated to Mr. H. Hancock by Sir J. Fife. He operated for Femoral Hernia on a woman. The operation was, apparently, completed in a few minutes; but on Sir J. F. passing his finger into the abdomen, to make sure that all was clear, he found the intestine bound to the iliac artery by an adhesion so strong, that a knife was required to divide it. The intestine was freed; but the gush of blood which took place showed what had happened. With equal promptitude and skill Sir John extended the wound, passed a ligature round the iliac, and the patient recovered without a bad symptom. Certain tables have been published, from which it would appear, that the mortality has been far greater in instances in which the sac has been opened, than where the contrary practice has been pursued; but Mr. Hancock has analyzed these tables, and satisfactorily shown that the impression intended to be conveyed by them, is not by any means borne out on an investigation into the actual causes of death; as, in a considerable number, the fatal result was not attributable to the nature of the operation, but arose from causes quite independent of it.

Mr. Hancock is strongly adverse to the employment of the taxis beyond

certain limits. In this we entirely agree with him, feeling satisfied that the risk of a fatal result is infinitely increased by the irritation and violence too often connected with long-continued and ill-directed efforts at reduction. Our own impression is, that if, after a fair trial of the taxis, skilfully applied, the Hernia is not reduced, further manipulation ought not to be attempted. Mr. Hancock recommends the use of chloroform, as superseding the necessity for the warm bath, bleeding, and tobacco. It is likely to prove a valuable auxiliary; and as to the employment of tobacco, if we were so unfortunate as to be the subject of Strangulated Hernia, we would rather submit at once to the operation, than trust to the slender chance of success afforded by the use of that potent, but dangerous and capricious, drug.

Another point on which much stress is laid by Mr. Hancock, is the avoidance of purgatives after the operation. A little reflection would show that, in the inflamed, irritable, and unnatural condition in which the bowel must be after incarceration, soothing measures are more rational than those which would tend to excite irritation. If, therefore, it be necessary to open the bowels, mild enemata afford the least objectionable mode of proceeding. We should never forget that our business is simply to assist nature; and it is both dangerous and unnecessary to be over-officious. To tranquillize the system, Mr. Hancock employs opium freely. On this point we would remark, that, with some persons opium disagrees so much, that, in our opinion, it is always prudent, before prescribing it in any case where vomiting is likely to be injurious, to ascertain, if possible, whether it does agree; if not, hyoscyamus would be preferable.

In conclusion, we recommend this work to our readers, as a sensible and practical exposition of the subject. That it may not meet the views of every one, is very possible; but the facts are so clearly put, and so ably argued, that it must leave a favourable impression on the minds of all, even of those whom it fails to convince.[1]

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Surgical Anatomy of the Arteries, and Descriptive Anatomy of the Heart. By the late V. Flood, M.D. New Edition, by J. H. Power, M.D. pp. 189. Dublin, 1850.

The preface to this edition bears date November 1849, from which circumstance, as also from the statement of the editor, we were led to expect that such a revision had been made, as would have brought the information conveyed, up to the standard of the present day. In this, however, our expectations have been disappointed; and we shall point out instances in which, for the sake of correctness, a little more attention in the editor would not have been misplaced. We are told that the operation of tying the right subclavian artery in the first part of its course was first performed by Professor Colles, of Dublin; then by Mr. Hayden, and afterwards by Mr. O'Reilly, both of the same city. Particulars of these cases are given; and as no allusion is made to any other example of this operation, it might naturally be inferred, that the three mentioned were the only instances in which it had been undertaken. We learn, however, from Dr. Hargreave, that there are *ten* cases on record, in which this operation has been performed; although, in every one, death from hæmorrhage was the discouraging result.

Whilst on the subject of subclavian operations, we may mention, that in the *American Journal of Medical Sciences* for January 1849, a very remarkable deviation of the left subclavian artery is described, combined with a singular and embarrassing condition of the neighbouring parts. The patient, who was considerably deformed from spinal curvature, was the subject of subclavian aneurism, and the artery was found to pass obliquely upwards, parallel to, and about an inch from, the external border of the trapezius. The first rib,

[1] Our readers will find some important discussions on Hernia, by Mr. Hancock and others, in the reports of the Westminster Society, given in our volume for 1849; and also at page 100 of last number.

and part of the second, passed obliquely across the neck above the clavicle, and the tubercle of the first rib was not sufficiently developed to be manifest to the touch; notwithstanding all these difficulties, Dr. Mason Warren successfully ligatured the artery. The particulars are given at p. 381 of our volume for 1849.

To return from this digression. It is stated in the work before us, that "both common carotids were tied successively by Dr. Mussey, of New Hampshire, in America, for aneurism by anastomosis on the crown of the head; between the two operations there were only twelve days interval; the tumour was subsequently removed, and the patient recovered". (p. 34.) This being the solitary instance mentioned, some of our readers may be surprised to learn, that in *ten* published instances, ligatures have been applied to both carotids, for various diseases.

A tendency to temerity is a very common failing with surgeons in the early part of their career, and it is therefore desirable not to stimulate such a tendency by under-stating the danger of the more serious operations. We find it remarked, at page 34, that "the possibility of tying the carotid without impairing the functions of the brain, has been abundantly proved by dissection". It would perhaps have been well to have added a caution against the rash or hasty performance of the operation. In twelve, out of thirty-eight cases in which the carotid was tied for aneurism, serious symptoms were manifested, in the brain, after the application of the ligature; and in vol. xxix of the *Medico-Chirurgical Transactions*, there are two strikingly instructive fatal cases recorded by Mr. Vincent.

A little investigation into the statistics of surgery would have corrected the statement which we presume was made in the first edition of Dr. Flood's book (which we do not happen to have at hand), to the effect, that the arteria innominata has been tied "about six times on the human subject". *Nine* instances are recorded, in which ligatures have been placed on that vessel; and in three others, the operation was commenced, but abandoned without the object being attained.

The description of the branches of the internal maxillary artery is concluded by the remark, that in cases of *hæmorrhage after the extraction of teeth*, "we may plug up the socket, or apply the actual cautery, or, if practicable, the tooth may be replaced". The student should, however, know, that there are yet two other modes, preferable (in our opinion) to either of the above. The first is the application of turpentine, which seldom fails, more especially if administered internally, as well as applied locally: the second is to place a small piece of matico leaf on the end of a piece of cork cut to the size of the tooth which has been extracted, introduce that into the socket, and let the patient bite upon it; this will answer far better than the clumsy replacement of the tooth.

Dr. Power speaks of the treatment of aneurism by compression, as one of the greatest achievements in modern surgery; and states, that in Dublin, it has almost entirely superseded the use of the ligature in cases of popliteal aneurism. In the hands of Dr. Bellingham, Mr. Greatrex, Mr. Newcombe, and more recently Mr. Tuffnell, the treatment by compression has been attended with great success. Some distinguished surgeons, however, are strongly in favour of the ligature; and no one more so than Mr. Syme, whose strictures on the treatment by compression are well deserving of perusal. They are not, however, alluded to by Dr. Power; and we may mention, *en passant*, that a little national prejudice seems to have reigned during the composition of the work before us; for the frequency with which the names of Irish surgeons occur, as compared with others, is quite remarkable.

At the present day, the illustrations to anatomical and surgical works are usually as remarkable for artistic excellence as for correctness of design. We need only refer to Dr. Carpenter's *Manual of Physiology*, Mr. E. Wilson's *Anatomist's Vade Mecum*, and Mr. Fergusson's admirable work on surgery. In

this respect, the volume before us falls far short of its competitors, for there is no disguising the fact, that the wood-cuts are, to use the mildest term, exceedingly inferior.

We have felt it our duty to offer these remarks, not in any carping or unfriendly spirit, but because we think that the execution of a book should bear out its pretensions. We readily admit that Dr. Flood's work was originally one of the best of its day; but should a third edition be required, the editor would do well to bestow more pains upon his charge, in order that it may be more fully brought up, in letter as well as in spirit, to the superior information and extended knowledge of the present age.

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Lecture Introductory to a Course of Clinical Medicine, delivered in the Glasgow Royal Infirmary, on the 13th November, 1849. By J. A. Easton, M.D. pp. 20. Glasgow: 1849.

This is a very sensible Introductory Lecture, and indicates that the Clinical Department of the Glasgow School of Medicine is in a sound state. This we rejoice to know; for, from the large population of that city, from the celebrity of its ancient University, and from the influence which attaches to the School of Medicine connected with the Andersonian College, a large number of the medical practitioners of Scotland must continue to be educated there. It is, therefore, matter of congratulation, that the museums, hospitals, and medical professors of Glasgow, are fully competent to supply such an education, as is commensurate with the present advanced state of medical science. In a foot-note, Dr. Easton gives the following interesting particulars:

"The Advantages of the Glasgow Royal Infirmary as a School of Practical Medicine and Surgery, have been so well set forth by my esteemed colleague Dr. M. S. Buchanan, in a Clinical Lecture, delivered under circumstances nearly similar to the present, that to insist any farther on such a topic is almost superfluous.[1] Yet, I may be permitted to remark, that in that Institution there are four hundred and sixty beds, that three thousand patients are admitted annually, and that the average number of surgical operations in a year, is one hundred and twenty. Attached to the Hospital, there is also a Dispensary, at which are treated annually six thousand out-door patients. Students have the opportunity of seeing the practice of the Hospital for two years, and of hearing the Clinical Lectures on Medicine and Surgery, which are delivered four times weekly, and all this for the sum of £7. 7*s*. To constitute a good Medical School, whatever else may be required, two things at least are essential, not only to its success, but to its very existence—abundance of subjects for anatomical purposes, and an extensive hospital. Now, neither of these essentials can be obtained excepting in localities where the population is not only large, but comprehensive of all grades of society, and where public works are numerous, varied, and extensive. Can the same facilities, then, for studying medicine be found in places in which the inhabitants are few comparatively in number, and nearly similar in grade and vocation? For example, can Galway, with its thirty-three thousand fishermen, kelp-manufacturers, exporters of pigs, flour, meal, and bacon, (vide M'Culloch's *Geographical Dictionary*, article 'Galway',) be expected to furnish the essentials alluded to above, as constituting the foundation of a Medical School, in the same degree or extent, that the flourishing and public-spirited town of Belfast can, with its busy population engaged in the diversified arts which spring from talent, enterprise, and industry? Or can Belfast, even with its daily increasing population, be supposed to furnish the essential pre-requisites for the study of medicine, that are afforded in a place like Glasgow,—the second city in Great Britain—and in which the population is increasing in the ratio of nearly ten thousand annually,—an increase not equalled, certainly not surpassed, by any other place in the United Kingdom?"

[1] An analysis of the Lecture will be found in the *Edinburgh Monthly Journal* for 1844, p. 590.

Our limits prevent us from giving extensive extracts from Dr. Easton's excellent and well-written exposition of the way in which disease ought to be observed and studied; but we must say that it is fully equal to any thing of the kind which could have been brought forward on such an occasion. The following sentences,—specially applicable to Glasgow, situated, as it is, in the midst of a mining population, and with its own dissipated and improvident artisans crowding the hospitals,—may probably be taken as an indication of Dr. Easton's method of instruction:—

"If the patient have been addicted to *intemperate habits* (as is the case, I am sorry to say, with too many of our patients), then you may have to deal with a prostrated nervous system, possibly with a softened brain, a cirrhose or tuberculated liver, a granular kidney, and almost invariably with a thickened gastric mucous membrane. Not that I mean to affirm that, in such persons, *all* these abnormal deviations, or even any one of them, must of necessity be present; but the very knowledge that they *occasionally* occur, ought to ensure a minute examination as to their presence or absence. Again, a knowledge of the *occupation* of the patient frequently furnishes a clue to the disease under which he labours. Thus, it is well known, that masons and knife-grinders, partly in consequence of pursuing their calling in the open air, during all vicissitudes of weather, and partly also from the introduction into their lungs of irritating particles from the materials on which they manipulate, are prone to pulmonary diseases; and to the same diseases, likewise, are book-printers liable, in consequence of the constrained position into which the chest is forced during their laudable exertions to promote the diffusion of knowledge. Again, the melanotic sputa, the rounded thorax, and the dingy complexion, proclaim that the unhappy possessor of them has habitually inhaled a carbonaceous atmosphere, in

'Subterranean caverns shunning the light.'

Having noted these, and many other circumstances, which your time will not permit me even to name, regarding what is called the previous history of the patient, you then proceed to ascertain his present condition. And here the examination consists of two parts,—the *subjective* and the *objective*. In pursuing the former, we listen to the patient's own statements; or we give a direction to these by putting a few leading questions, and thus obtain a knowledge of his own view of his case, so to speak, and become acquainted with his sensations, normal as well as abnormal, commencing our examination possibly at the head, and, if necessary, extending our inquiries downwards, through every part of the body."

We believe that so early as the year 1827, Clinical Instruction was established in Glasgow, upon a creditable basis; and, perhaps, had the Glasgow Medical Journal then established, continued to publish its valuable additions to practical medicine and surgery, the reputation of the school might have been higher, and its advantages better known. Since 1841, the *Edinburgh Monthly Journal* has published some good original memoirs by the physicians and surgeons of Glasgow.

The remuneration of the medical profession in Glasgow—to the disgrace of her merchant princes, be it said—is miserable in the extreme; and it is notorious, that the most eminent men in the profession, from the smallness of the fees, are obliged to undertake such an amount of general practice as necessitates greater fatigue and physical exertion than are compatible with sustained scientific research and literary occupation. To those who enjoy University endowments we do not allude; but to others of equal repute, who, we have good reason to believe, are more worn out by the toils of ill-paid daily practice than is proper or reasonable. The teachers of an efficient medical school must either be adequately paid for their services, or the recipients of the large fees of a metropolitan practice. Leisure, reading, and reflection, are almost as necessary to the clinical professor as opportunities of observing disease.

PRACTICAL TREATISE ON INFLAMMATION OF THE UTERUS AND ITS APPENDAGES. By JAMES HENRY BENNET, M.D. Second edition. pp. 527. London: 1849.

*(Concluded from p.* 1038 *of the volume for* 1849.*)*

In November last, we pointed out the importance, in practice, of recognizing the two facts, that inflammation of the cervix is a very common disease, and that inflammation of the body of the womb is a very rare affection; and by extracts from Dr. BENNET's work, we laid before our readers the anatomical conditions which explain this difference. We now proceed with our analysis; refraining from saying more at present upon these points. The very interesting discussions in connexion therewith, which have recently engaged the French Academy of Medicine, we shall lay before our readers upon an early occasion.

INFLAMMATION OF THE BODY OF THE UTERUS, apart from that which is connected with the puerperal state, occupies the third chapter. It is considered with reference to degree, as to whether it be *acute* or *chronic;* and with reference to its seat, as to whether it attack the entire body of the uterus, the peritoneum, or the internal mucous lining. Dr. Bennet believes that inflammation of the lateral ligaments is often mistaken, even by experienced practitioners, for inflammation of the body of the uterus. "The chief *causes* that tend immediately to induce acute metritis are, arrested menstruation, sexual excesses, and the extension of chronic inflammation from the neck of the organ. To these I would also add, as occasionally acute inflammation, all kind of surgical interference with the uterine organs, such as cauterization of ulcerations of the cervix, the use of vaginal injections, of pessaries, etc. Any influence that suddenly arrests menstruation, such as exposure to cold or damp, wet feet, or mental emotions, especially in its incipient stage, may give rise to acute metritis. These latter causes are generally considered to be capable of occasioning acute inflammation, even in the interval of menstruation. I have very seldom, however, observed it in the unimpregnated uterus apart from the menstrual period, except as the result of some physical injury—of a blow, of a severe fall, or of cauterization of the cervix. This latter cause of inflammation acts, it must be remembered, on an organ, the vitality of which has been raised by the existence in its immediate vicinity of inflammatory disease, generally of a chronic nature. Although of rare occurrence, acute metritis having this origin is occasionally met with by those who have great opportunities of observation." (p. 26.)

ACUTE METRITIS. The *Symptoms* are local, and general or sympathetic. "The inflamed uterus is so exquisitely painful, that the slightest pressure exercised directly upon it, through the vagina, occasions severe pain, often giving rise instantaneously to a sensation of nausea. Notwithstanding this excessive sensitiveness of the uterus, it is possible in every case to ascertain, without putting the patient to any great amount of pain, that it is the uterus itself which is the seat of inflammation, and not the adjoining tissues. The sensitive tumour is the immediate continuation of the cervix, occupying the median line, and is equally painful and evident on the right and on the left of that line; unless, however, the uterus be naturally lying transversely from right to left, as is sometimes the case, when the inflamed organ will extend more to the right than to the left side. This is a very important practical point to determine, as in inflammation of the lateral ligaments, the tumour formed by the inflamed tissues is generally applied, annexed, as it were, to the side of the uterus, so as only to form one mass. Owing to the great sensitiveness of the uterus if touched or moved, directly or indirectly, the patient is unable to walk, or even to stand; and when sitting up in bed (a very painful position), the body is generally so inclined as to take off all strain from the abdominal region. When lying down, the patient always remains on the back, that being the position in which the uterus presses

least on the surrounding organs. The passage of the fæces through the rectum is often attended with very great pain, owing principally to its position immediately behind the uterus. This is more especially the case when the motions are constipated. They are then sometimes coated with mucus, showing an irritable state of the rectal mucous membrane. There is also, frequently, considerable irritation and pain about the bladder, accompanied by more or less marked dysuria. The vascular and nervous connexion between the uterus, the rectum, and the bladder, is too intimate, for these organs not all to suffer when one of them is severely inflamed." (p. 28.) There is generally considerable febrile reaction : and the breasts—one or both—are often sympathetically affected. Acute metritis generally terminates in *resolution* within from five to ten days, suppuration being extremely rare, in consequence of the absence of cellular tissue in the structure of the body of the uterus. The affection may become chronic, or it may extend to the lateral ligaments. Dr. Bennet has never seen acute metritis terminate fatally in the unimpregnated condition, and there are very few such cases on record. The author remarks that this is "owing to the inflammation so seldom extending to the peritoneum, and to the uterus not being an organ having functions to perform necessary to the preservation of the individual. A vast amount of uterine disease may consequently exist, without life being directly endangered." (p. 30.) But, although not a disease dangerous to life, it is one which, if neglected or mismanaged, by becoming chronic, may occasion serious and prolonged suffering. Perhaps inflammation of the womb is very often not suspected by the practitioner ; in many instances, the case being subjected to no rigorous diagnosis, and regarded vaguely as inflammation of the bowels. With Dr. Bennet, we say that—"Treatment based on such obscure notions of the real state of the patient, is apt to fall short of the necessities of the case, to partially subdue the morbid symptoms only, and to leave behind the seeds of future and more intractable disease."

Chronic Metritis is very well described : and it is instructive to observe, that the general symptoms are really those which are popularly, and even in the profession, too little recognized as being associated with a morbid and remediable state of the womb. We are very far from wishing to detract from the paramount importance and necessity of much that is embraced in the common treatment of hysteria, but we believe that a better direction would often be given to our curative efforts, if it were more generally understood that the condition of the womb was often the essential cause of the derangement of the nervous system. Over and over again have we seen a wretched state of general health, and nervous symptoms the most anomalous, subside under the active and successful treatment of a leucorrhœa, which had been long looked on as an evil only to be got rid of when the general health was restored.

Internal Metritis or Uterine Catarrh—as defined by Dr. Bennet—is a rare disease :

"It has only been considered common because it has been confounded with inflammation of the *cavity of the cervix*,—a disease which, on the contrary, is very often met with. The mucous membrane that lines the cavity of the cervix, as we have seen, instead of being rudimentary, like that which lines the uterine cavity, presents a certain thickness, is plaited in folds, is abundantly studded with mucous follicles, and presents a more extensive surface than the uterine mucous membrane. It is not generally known, that the uterine cavity, in the unimpregnated state, is exceedingly limited in extent ; so much so indeed, that, according to M. Vidal de Cassis, who made, some years ago, many careful experiments, in order to ascertain its capacity with reference to the use of injections in the disease we are studying, the uterus of a full-grown woman does not contain more than from nine to eleven minims of fluid. The cavity of the healthy cervix, if distended, contains

about as much. The two cavities are distinctly separated one from the other, as I have explained, by a constriction, or natural sphincter, which has not been described by anatomists, but which is sufficiently powerful to offer a decided obstacle to the introduction of the uterine sound into the cavity of the uterus, in the healthy state. The existence of this constriction was first pointed out to me, some years ago, by Dr. Simpson of Edinburgh, as an indication of a morbid condition; but my subsequent researches have led me to believe that it exists in the healthy state, and that it is not *necessarily* morbid, even when carried to such an extent as to render the introduction of the uterine sound impossible. The cavity of the cervix is also deeper by half an inch than that of the uterus itself. The uterine sound, when passed into the uterus, is concealed to the extent of two inches and a half; of which, one inch and a half occupies the cavity of the cervix, whilst one inch only is in the uterus.

"The above anatomical facts will at once explain the cause of the error into which even the latest continental writers on uterine catarrh have fallen. Whenever, on examining the cervix with the speculum, muco-pus is observed issuing from the os uteri, they conclude, without further examination, that it proceeds from the *cavity* of the uterus, and that the latter is the seat of inflammation. They do not reflect that the muco-pus *may* proceed, as it really does in nineteen cases out of twenty, from the cavity *of the cervix*. The result of a careful examination of all the cases of inflammation of the cervix uteri that I have seen during the last three years, amounting to between five and six hundred, with reference to this point, has shown me that, in the immense majority, the inflammation does not extend into the cavity of the uterus. I have been led to this conclusion by the observation of the following facts: Firstly. The dilatation which invariably *accompanies* inflammation of the cavity of the cervix, does not, generally speaking, extend to the internal constricted point, or 'os internum'; the latter remaining contracted, so as not to allow the free admission of the sound into the uterine cavity. Secondly. Therapeutical means, carried so far only as the morbid dilatation exists, or to the os internum, effectually cure the inflammation, and put a stop to the discharge.

"In some few cases, on the contrary, the os internum participates in the relaxation of the cervical cavity, so that the sound passes freely into the uterus,—the two cavities communicating. When this is noticed, the cavity of the uterus may or may not be inflamed; if it is, the discharge from the os uteri is more abundant, and presents peculiar characters; the local and general symptoms are rather different; and, what is conclusive, therapeutical agents carried into the cavity of the cervix alone, may not be sufficient to effect a cure. These latter cases are really cases of Internal Metritis, or uterine catarrh. The former (by far the more numerous) I look upon as cases of inflammation of *the mucous membrane lining the cavity of the cervix only, or of cervical catarrh.*

"*Causes.* All the causes which give rise to acute or chronic Metritis, may also occasion Internal Metritis. It appears, however, to be generally met with in practice, as the result of the lengthened existence of inflammatory disease of the cervix and of its cavity. The inflammation gradually progresses along the cavity of the cervix until it reaches the os internum, and passes into the uterus. Indeed, considering the extreme frequency of inflammation of the entire cavity of the cervix, it is only surprising that the disease should so generally stop at the internal sphincter of that organ. The cause, however, of this clinical fact is, no doubt, the change in the structure of the mucous membrane, which commences at this point.

"Among the causes most likely to give rise to Internal Metritis, a prominent position must be given to the inflammations that occur after parturition and abortion. When inflammation of the uterus follows the expulsion of the ovum, the surface on which the placenta was implanted, is peculiarly

liable to be attacked, and the seeds of chronic inflammation of the uterine lining membrane may thus be sown. In some exceptional cases, blennorrhagic inflammation may be a cause of Internal Metritis; the inflammation gradually extending from the vagina to the cervix, to its cavity, and to that of the uterus. This, however, I believe to be much less frequently the case than has been asserted.

"*Symptoms.* Internal Metritis being nearly always complicated by inflammation of the cervix, of its cavity, or of the substance of the womb, its symptoms are rather difficult to unravel; so difficult, indeed, that I do not believe the task has yet been accomplished satisfactorily by any writer. Internal Metritis may be said to exist to a certainty, if the os internum of the cervix is so completely open as to allow the uterine sound to pass freely into the uterine cavity; if that cavity is increased in size, and more sensitive, and if, likewise, there is a more or less abundant *sero-sanguinolent* discharge, accompanied by dull, deep-seated pain in the region of the uterus itself,—that is, behind and slightly above the pubis,—and by a certain amount of general febrile reaction.

"The sero-sanguinolent discharge is the most important of these symptoms; indeed, it may be said to be as characteristic of Internal Metritis as the rust-coloured expectoration is of pneumonia. The presence of blood in the secretion from the inflamed mucous surfaces is, in both cases, owing to the same cause—viz., the absence of an epithelial covering. The epithelium ceases to exist in the cavity of the uterus as in the cells of the lungs; and, when this is the case, the blood corpuscules exude in inflammation, and blood is expelled mingled with the secretion of the inflamed surface. This sanguinolent discharge, however, is not always present when there is inflammation of the interior of the uterus. It is only when the inflammation is severe, or in its period of greatest intensity, that it is observed. At the onset, in the period of decrease, and sometimes throughout the entire duration of the disease, the secretion may be merely muciform or puriform. When congestion alone remains, it may consist only of transparent mucus. If this is the case, it becomes more difficult to distinguish Internal Metritis from inflammation of the cavity of the cervix, in which the same discharges are present; in both, they may be seen issuing in a thick stream from the os uteri, when the cervix is brought into view with the speculum. We can then only be guided by the amount of the discharge, by the morbid dilatation of the os internum, and by the other symptoms which I have enumerated.

"In the healthy unimpregnated uterus, as I have stated, the cavity of the uterus is only one inch in depth, and so extremely small as merely to contain a few drops of fluid; consequently, the uterine sound, once introduced, has but an exceedingly limited range of motion. In Internal Metritis, the cavity of the uterus is dilated, increased in size, and the uterine sound moves with more freedom; the presence of the sound in the uterus, and its contact with the walls of its cavity, seem also to be attended with more pain than usual. This symptom, however, cannot be much depended upon, as the introduction of the sound generally occasions pain even in the healthy uterus; not unfrequently giving rise to nausea and faintness. Indeed, the cavity of the uterus appears to be naturally as sensitive as that of the cervix, and its os is little so.

"Internal Metritis is nearly always accompanied by a dull, aching pain in the back or ovarian regions, similar to that experienced in inflammation of the cervix, and by deep-seated pain in the region of the uterus. The uterus is generally rather swollen, enlarged and sensitive to the touch, the entire organ being in a congested, irritable state. Internal Metritis is also often accompanied by a slight amount of febrile reaction, occurring at intervals, after exertion, instrumental interference, or at the monthly periods. The catamenia are often disordered, generally manifesting themselves more frequently and more abundantly, lasting longer, and being attended with

more pain than usual. Sometimes the flow of blood is so great and so lengthened as to constitute flooding; and this is more especially observed, as might be anticipated, when the sero-sanguinolent discharge is present. With some patients, however, on the contrary, the menstrual secretion appears to be diminished; but in either case it may be laid down as a rule, that the disease is aggravated by the appearance of menstruation. In addition to these symptoms, all the general sympathetic reactions which are observed in chronic metritis, and in chronic inflammation of the cervix, may be present. As Internal Metritis is generally complicated by these diseases, we may also have the peculiar symptoms which they present.

"In some rare instances, inflammation of the lining membrane of the uterine cavity is followed by ulceration. When this is the case, the cavity of the uterus becomes considerably enlarged, and large quantities of pus, blood, and mucus, collect within it, and are expelled through the os uteri. Dr. Hall Davis exhibited, a short time ago, to the Pathological Society, the uterus of a woman thus affected, who died under his care; there were several large ulcerations on the internal surface of the organ. There are other cases on record; but this termination of Internal Metritis is undoubtedly very rare. The rudimentary mucous membrane of the uterus does not seem very liable to the ulcerative stage of inflammation.

"From what precedes, it will be evident that, although a careful digital examination, combined with the use of the uterine sound, enables us to appreciate many of the symptoms of Internal Metritis, yet we can only obtain all the information we require to form a diagnosis, by carefully examining with the speculum the condition of the uterine organs. The cervix should be brought completely into view, in a good light, so as to enable the medical attendant, not only to ascertain its precise condition, and that of the inferior and external portion of the cavity of the cervix, but likewise to appreciate the amount and precise nature of the discharge that issues from the os uteri.

"*Progress, Termination, Prognosis.* Internal Metritis, when acute, and a mere complication of inflammation of the body of the uterus,—as is often the case when the immediate result of parturition or abortion,—not unfrequently terminates by resolution. Sometimes, even in these cases, it passes into the chronic form. Apart from the puerperal condition, it is generally observed in the chronic stage. Once it has become chronic, it may perpetuate its existence indefinitely, if unmodified by treatment. Like all other uterine inflammations, it is often kept alive, even in the best constitutions, by the periodical exacerbations occasioned by the monthly molimen hemorrhagicum. Indeed, owing in a great measure to this cause, it is very rarely that we see Internal Metritis, once it has attained the chronic stage, spontaneously terminating by resolution, at least during the persistence of the menses. When the latter have definitely ceased, this form of uterine inflammation, like those which we have studied or shall study, may gradually yield, and eventually disappear under the mere influence of the modified functional and structural vitality of the uterine organs. Confirmed Internal Metritis may exercise a sufficiently severe sympathetic influence over the constitution to debilitate the patient thoroughly, and to occasion death indirectly, by exposing her, thus weakened and reduced, to the development of cachectic and accidental affections.

"*Pathological Anatomy.* I have repeatedly seen the surface of the uterine cavity presenting the anatomical evidences of inflammation, in patients who have died of puerperal inflammation at various periods after their confinement. The internal surface of the uterus was then red, swollen, congested, and covered with a thin coat of muco-pus; but I have only once seen a uterus presenting evidence of this form of disease in the non-puerperal state; it was in the case of internal uterine ulceration, observed by Dr. Hall Davis, to which I have alluded. The mucous membrane presented several large in-

flammatory ulcerations, situated on the internal surface of the uterine walls, and quite distinct from the cavity of the cervix, which appeared free from inflammation. There was, however, considerable disease of the uterus present, besides the inflammation of its cavity. The organ was much enlarged, its walls thickened, and its cavity greatly dilated.

"*Diagnosis.* The elements of a correct diagnosis of this disease are to be found in the account which I have given of its symptoms. Internal Metritis presents so many points of contact of inflammation of the cervix or of the body of the uterus, that the diagnosis can only be satisfactorily established by a rigorous analysis of the symptoms of all these diseases; with which, moreover, it is generally complicated. I may, however, remind the reader, that Internal Metritis is generally confounded with acute or chronic metritis, but more especially with inflammation of the lining membrane of the *cavity of the cervix.* In acute metritis, there is much more febrile reaction, greater local pain, and more sensibility of the uterus. In chronic metritis, there is a marked *partial* sensibility of the uterus, accompanied by local changes in its volume. In inflammation confined to the cavity of the cervix, muco-pus oozes out of the os uteri, and the cavity of the cervix is dilated, but the os internum remains closed. Moreover, although the mucoso-puriform secretion may be streaked with blood, it is not *mingled* with it, as in the acute stage of Internal Metritis. There is not that sero-sanguinolent, sanious discharge which characterizes this latter disease, nor the often severe reactional symptoms to which it appears to give rise.

"As I have already stated, it is to inflammation of the cavity of the cervix that we must refer nearly all that has been written of late years by continental writers respecting Internal Metritis. They are evidently quite ignorant of the normal existence of the internal sphincter on which I have found it necessary to lay such stress, and do not appear to have any clear view of the comparative length of the two cavities of the cervix and of the body of the uterus. Consequently, they have concluded that the injections, which they used therapeutically, penetrated into the interior of the uterus, and cured the internal uterine inflammation which they supposed to exist; whereas, in reality, the disease must have been nearly always confined to the cavity of the cervix, and the remedies used cannot have penetrated beyond the os internum, that is, beyond the sphincter, which separates the two cavities."

It will be observed that, in the above extract, Dr. Bennet makes a statement regarding the stricture between the cavities of the cervix and body of the womb, which runs counter to much that has lately been written by Dr. Simpson of Edinburgh, and his followers, as to the uterine sound. Dr. Bennet's assertion, that the arctation may be such as to prevent the entrance of the uterine sound, and yet be not a morbid condition, if correct, would go far to displace from practice the Edinburgh dilatation method of treating certain cases of dysmenorrhœa and sterility; and it would likewise point out a difficulty in the way of catheterism of the Fallopian tubes, which has not yet been weighed. Having already given the anatomical statements which bear on this stricture being normal or morbid (unless when temporarily absent during menstruation), we can only call attention to the important practical questions, which depend upon the point being correctly settled, and not left, as at present, with authorities of high repute, and most ample experience, making opposing statements.

Inflammation and Abscess of the Uterine Appendages: Ovaries, Fallopian Tubes, and Cellular Tissue. This is an important chapter, upon a subject which, although exidently not unknown to the ancients, receives but little satisfactory consideration, even in the best modern works. This is the more remarkable, as abscesses in the lateral ligaments were well described by Puzos. We consider this chapter very valuable, especially that part of it devoted to Inflammation and Abscesses of the Uterine Append-

ages in the non-puerperal state. In non-puerperal women, inflammation of the lateral ligaments is most commonly confined to the "cellular tissue, and to the organs contained between them, and does not extend to the free cellular tissue of the pelvic cavity"; and Dr. Bennet supposes that, in the puerperal form, the disease is, at least at first, similarly limited. These abscesses generally open into the rectum or vagina; and the escape of the pus is often the first notice which the patient, or the medical attendant, receives as to the exact nature of the affection. The two diseases with which inflammation of the lateral ligaments is most likely to be confounded, are acute metritis and abscess of the iliac fossa. In the puerperal state, abscess of the lateral ligaments is generally associated with extensive abdominal and pelvic inflammation; and it is not easy to determine in what structure the inflammation has commenced.

Inflammation, Ulceration, and Hypertrophy of the Neck of the Uterus. This subject is treated by Dr. Bennet under the following heads:

1. In the virgin female.
2. In the pregnant female.
3. During and after abortion and parturition.
4. In advanced life, after the cessation of menstruation.
5. As a concomitant of polypi and of fibrous tumours of the uterus.

This portion of Dr. Bennet's work occupies 160 pages, and contains a very luminous account of the whole subject. At the same time, we cannot help saying, that the same ideas are frequently repeated; and that, by abridgment, the value of the matter would not be diminished. There is also another point, which deserves notice; and that is, the complete hold which the author's favourite subject has acquired over his mind. We see, as it were, an inability on his part to recognize any other cause of deranged female health, than Inflammation of the Uterus and its Appendages; and, in particular, of the cervix. At the same time, it must be admitted that Dr. Bennet has rendered essential service to obstetric medicine, by proclaiming the true pathology of many cases, hitherto regarded incurable, of leucorrhœa, dysmenorrhœa, menorrhagia, amenorrhœa, irregular menstruation, and partial prolapsus. He has also pointed out the causes and treatment of abortion and sterility in women who, some years ago, and even yet, we fear, might in many instances be subjected to treatment, the very opposite of what is requisite or proper. We would particularly draw attention to the general derangement of health, which exists in connexion with Inflammation of the Neck of the Uterus. We quite agree with Dr. Bennet, in thinking that digital or instrumental examination of the uterus, in unmarried women, ought very rarely to be resorted to: and perhaps we would have recourse to it even less frequently than he would approve of, though nothing could be more satisfactory than the following sentences, in which the subject is adverted to. "It is of the utmost importance that no physical examination should even be thought of in an unmarried female, unless there be next to a moral certainty that inflammation and ulceration of the uterine neck actually exist. Fortunately, a practitioner, familiarized with the disease, may generally acquire this conviction by oral examination of the patient, and by a careful and judicious appreciation of all the elements of the case." (p. 163.) And again, at p. 170, we find the following passage: "Experience having thus taught me, that severe ulcerative inflammation of the cervix uteri is occasionally met with in unmarried females; that it is then the cause of great functional uterine disorder, and of extreme general debility; and that by physical examination only can the disease be fully recognized and treated; I have no hesitation in stating, that such an examination, *in these exceptional cases*, becomes imperative. As, however, an investigation of this nature is a serious matter, and must be equally repugnant to the feelings of the medical attendant and of his patient, it should only be resorted to as an extreme measure—as a last resource. No

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practitioner, who has not acquired an accurate knowledge of these forms of uterine disease in married females, ought, in my opinion, to resort to it on his own responsibility, as he may, by so doing, unnecessarily expose his patient and her friends to great mental distress, through his ignorance of the real meaning of the symptoms which she presents. It is only by educating the finger by the eye, that it acquires that delicacy of tact which enables the medical attendant to discover ulceration of the cervix by digital examination. Indeed, I cannot too strongly insist on the practical importance of the fact, hitherto overlooked in this country, that the information afforded by digital examination is alike obscure and useless, until the finger has been educated, and its errors corrected by the eye."

Inflammation and Ulceration of the Neck of the Uterus, during Pregnancy. The remarks on this subject are full of practical interest; and we feel assured, that their general truthfulness will be assented to, by every one engaged in this department of practice. Cases of hæmorrhage during the early months of pregnancy, simulating menorrhagia, and casting a doubt on the existence of pregnancy from their almost periodical recurrence, are sufficiently common, though their true nature is but little understood.

This affection appears to have escaped the notice of all writers, British or foreign, on uterine pathology. The history of its first observation is thus given by Dr. Bennet.

"My attention was first drawn to inflammatory ulceration of the cervix uteri in pregnant females, by M. Boys de Loury, one of the physicians of Saint Lazare, an hospital-prison in Paris, where women of the town labouring under syphilis are confined and treated. The speculum being used with all the patients, as a means of exploration, (with those who are pregnant as well as with those who are not), M. Boys de Loury thus discovered that ulcerative inflammation of the cervix is not uncommon in pregnant women, and that when left to itself, it frequently occasions abortion. I believe that I am authorized to attribute to M. Boys de Loury this great discovery, as I certainly never heard any other practitioner allude in the most cursory manner to the subject, and I am not acquainted even with a hint respecting it in the entire range of medical literature. M. Boys de Loury's discovery was briefly noticed, in 1843, by one of his house-physicians, M. H. Costilhes, in a thesis sustained before the Paris Faculty of Medicine. M. Costilhes' cursory notice was the only one that had appeared of this pathological fact in any language, when the first edition of the present work was published. Since that time, I have devoted great attention to the elucidation of inflammatory ulceration of the cervix during pregnancy, and have ascertained that it is of frequent occurrence, that it is the key-stone to the diseases of the pregnant state, and the most general cause of laborious pregnancy, obstinate sickness, moles, abortions, miscarriages, and hæmorrhage. The results of my researches on these points, as contained in the present chapter, were read before the physiological section of the British Association at Southampton, on September 11th, 1846.

"Valuable corroborative evidence has since been brought forward by Mr. Whitehead, of Manchester, whose laborious and interesting investigations on this subject are contained in the Treatise on Abortion, which he published the following year, in 1847." (pp. 191-2.)

The disease will, on inquiry, be generally found to have existed previous to conception; and this has led Dr. Bennet to modify his opinion with respect to the production of sterility by inflammatory ulceration of the uterine neck. It produces this effect chiefly in young married females, who have not yet become pregnant.

The local symptoms are mostly the same as those which exist in the non-pregnant state, but modified or obscured by the changed state of the uterus. The diagnosis by the touch is rendered difficult by the fact, that both preg-

nancy and inflammation of the neck of the virgin uterus, are alike accompanied by increased volume in the cervix, an open state of the os, and retroversion, coupled with a velvety surface. The affection may, however, be diagnosed even in the early stage of pregnancy, by the following data. "When inflamed and ulcerated, the non-pregnant cervix is usually more or less indurated, whereas in the first months of pregnancy, even when inflamed and ulcerated, it is generally, but not always, soft: the ulcerated os is much more open than is consistent with the period of the pregnancy; and instead of presenting a smooth surface, it has a very peculiar feel, of which the word velvety scarcely conveys an idea. Its surface appears fungous to the touch, and in a more advanced period of pregnancy, of a quaggy, pultaceous consistency. In the midst of this fungous surface may sometimes be felt small, moveable indurations, of the size of a large pin's head, constituted by indurated and hypertrophied mucous crypts. On withdrawing the finger, it will generally be found covered with muco-pus, and sometimes tinged with blood; indeed, the vagina generally contains a great quantity of muco-pus, especially in its upper region." (p. 194.)

Examination with the speculum is somewhat difficult, on account of the retroversion of the cervix; hence Dr. Bennet recommends here the use of a conical bivalve or large conical speculum. The cervix "will be found tumid, congested, of a livid hue, voluminous, soft, or only partially indurated; and on one or both lips, generally penetrating into the cavity of the os, is seen a more or less extensive ulceration, sometimes covered with large fungous granulations." Dr. Bennet considers the luxuriant fungosity to be exclusively connected with the gravid state.

A previously hypertrophied and indurated cervix begins to soften at about the third month of pregnancy; and this, no doubt, accounts for induration of the os at the time of labour being comparatively rare.

The patient complains of pains in the lumbar, hypogastric, and ovarian regions; there is generally a profuse purulent secretion, often mixed with a white flux from the congested cervix and vagina, which may obscure the nature of the affection. There is often hæmorrhage from the ulcerated surface. This may be periodical, and simulate menstruation; but, though Dr. Bennet denies that the hæmorrhage can be assimilated to menstruation, he admits that its periodicity is connected with the periodical *molimen hæmorrhagicum* which accompanies this process.

In speaking of the general symptoms of this affection, which consist in a derangement of the general health, Dr. Bennet offers some valuable remarks on its tendency to produce *abortion*. The symptoms are those which are known to precede abortion; and Dr. Bennet believes, that when miscarriage occurs, the symptoms preceding it are connected, much oftener than is suspected, with inflammation of the neck of the uterus. "It stands to reason, that the existence of ulcerative inflammation of the uterine neck must often occasion such an amount of inflammatory congestion of the entire uterine system, as to be incompatible with the development of the fœtus, even during the first months of pregnancy. Thence the death of the fœtus, repeated hæmorrhage, diseased placenta, the formation of moles, and finally, abortion. If the patient escapes during the first months of pregnancy, the gradual dilatation of the inflamed tissues of the cervix which takes place in the latter months, causes irritation, and exciting the uterus to contract by reflex spinal action, may occasion abortion or premature labour. In a case which I lately attended, the patient, a young married woman of four-and twenty, labouring under severe inflammatory ulceration of the cervix, miscarried five times successively within the first four years of her marriage, at the end of the sixth or at the beginning of the seventh month.

"In some instances, notwithstanding the existence of severe inflammatory ulceration of the cervix, the patient goes to her full time, and is safely delivered. But the fact of extensive ulceration existing at the uterine neck is a

most unfavourable complication to labour, rendering the patient much more liable to metro-peritonitis, and to the accidents which occasionally follow parturition.

"When once under the influence of appropriate treatment, the ulceration, generally speaking, soon assumes a healthier, less luxuriant appearance, then begins to cicatrize, and finally heals. When the progress of cicatrization has fairly set in, and the irritability of the ulcer and of the surrounding tissues has been subdued, there is but little fear of abortion taking place. But until this is the case, abortion is imminent, and may, indeed, be feared daily. In some instances, the morbid change which the disease has occasioned in the uterus and its contents, has progressed too far before the treatment is commenced, and in spite of all our efforts, and even of progressive amelioration, abortion takes place from some of the causes enumerated above. It is necessary, therefore, to apprize the patient, under all circumstances, of the danger she encounters, as she would otherwise be certain to attribute the miscarriage to the instrumental examination." (pp. 198-99.) With regard to the careful use of the speculum during pregnancy, Dr. Bennet states it to be perfectly harmless, and even imperative, from the great probability of the production of abortion by the local affection.

Several interesting cases of inflammation of the neck of the uterus, during pregnancy, are detailed; of these we will select a few, as illustrative of this evidently important, but obscurely-known, affection.

Case. *Abortion prevented. Cure. Death from Metro-Peritonitis, after a favourable confinement.* "June 26, 1846. I was consulted at the Western Dispensary by Eliza T——, a pale, sickly-looking, young married woman, aged twenty-three. Her uterine and general antecedents were as follow:— Menstruated at sixteen; she continued to be so regularly every three weeks, until she married, four months ago, at the end of last February, just after menstruation. The menses were, usually, abundant, lasting four days, during the first of which she was generally in an agony of pain; and were followed by a white leucorrhœal discharge for some days. Her health, however, was very good, until about a twelmonth ago, when the whites increased in intensity, lasting during the entire menstrual interval, and she became weak and poorly. She also experienced severe pain in the back, and occasionally in her side. After her marriage, the first attempts at intercourse were followed by such severe uterine pains, that she was obliged to return home to her family, and was confined to her bed for above a week. The same symptoms afterwards occurred on every similar occasion; and were always accompanied, as at first, by the loss of more or less blood. The leucorrhœal discharge, which she recollects to have been then of a decidedly yellow character, was occasionally streaked with blood, even in the absence of the cause mentioned. There was never any flow of blood, however, which could be considered menstrual. Her general health gradually became more and more affected. When I saw her, she was pale and sallow, although rather stout, and felt very weak and ill. Tongue white, no appetite, bowels constipated, cephalalgia, cardialgia, rest bad, disturbed by dreams, frequent hysterical and fainting fits.

"On examination, I found the uterus enlarged, rising in the abdomen several inches above the pubis, as in the fourth or fifth month of pregnancy. The cervix, although voluminous, was not much indurated: the os was very open, and around and within it, the spongy sensation of an ulcerated surface was evident. On withdrawing the finger, it was found covered with pus tinged with blood. On using the speculum, the vagina appeared much more florid than is generally the case in the first months of pregnancy; it was lax, and contained a considerable quantity of pus. The cervix was voluminous, congested, of a florid-red hue, and presented an extensive fungous bleeding ulceration, existing on both lips of the cervix around the os, and extending into the cervical cavity. The ulceration was freely cauterized with the

nitrate of silver; alum injections were prescribed, perfect rest, an occasional saline aperient mixture, and very light diet.

"July 3rd. The application of the caustic was followed, for several days, by an abundant sanguineo-purulent secretion. On the disappearance of the blood, the discharge diminished in quantity. The patient feels easier; the uterine and lumbar pains are less intense; the ulceration has a less fungous and more healthy appearance. Treatment the same as before.

"10th. The ulceration is diminished to half its original size, and is healthy-looking; vagina less injected; pains in uterus and back very much better; leucorrhœa less; alum injections, cauterization with the nitrate of silver.

"17th. Ulceration healed, except in the cavity of the open cervix, and immediately around it. Leucorrhœal discharge, white, no longer purulent; the fainting fits are less frequent, and the general health is much improved. Same treatment.

"August 10th. On examining the cervix, I found the ulceration completely healed; the redness of the vagina and uterine neck was merely what it usually is at this period of pregnancy; the pains in the back and uterus had almost entirely disappeared, as also the leucorrhœal discharge. The general health had rallied in a very marked manner. She had not felt so well, she said, for months before her marriage.

"On the 1st of September, I again ascertained, instrumentally, the perfect integrity of the cervix. I continued, however, to see her at intervals. She remained quite free from her former uterine symptoms, gradually recovering health and strength, although rather weak. When I last saw her, in the eighth month of her pregnancy, she did not present an unfavourable symptom, and appeared in good spirits. She had latterly had a severe attack of acute bronchitis, from which she had quite recovered. I then lost sight of her, and only heard, some months afterwards, that she had entered Queen Charlotte's Lying-in Hospital, for her confinement, which took place favourably, but that she was attacked with metro-peritonitis, and died a few days afterwards." (pp. 208-10.)

"Case. *Ulcerative Inflammation of the Uterine Neck recognized in the sixth month of Pregnancy; Abortion; Four previous Abortions at the same period of Pregnancy; ultimate Recovery.* April the 12th, 1846, I was requested, at the Western Dispensary, to sign a midwifery letter, by Elizabeth G., a married woman, aged 28, six months gone in her fifth pregnancy. On inquiring as to the present and past state of her health,—a precaution which I generally take under similar circumstances,—I was told that she felt very unwell; that she had miscarried four times since her marriage, within the last four years; that the last three miscarriages had occurred at six or seven months, the period of pregnancy at which she had then arrived; and that she then experienced all the symptoms which had preceded the former miscarriages. This statement induced me to examine more minutely into her history, when I ascertained the following details. Tall, and rather thin, her health had been always delicate; she was born, and brought up, in town. Menstruated at seventeen, she was irregularly unwell, but without pain, for a year; the menses then disappeared for two years, during which time she was very poorly. At twenty they returned, and continued to appear regularly until she married, at the age of twenty-four. She became at once pregnant, and aborted at three months; cause unknown. Her second abortion, which occurred at six months, as likewise the subsequent ones, was preceded by a week's flooding, and she was confined to her bed for a fortnight. Since that epoch she has always had a yellow leucorrhœal discharge. As a girl, she often had 'the whites,' but the discharge was never yellow. Her abortions were never preceded by any circumstances to which she could ascribe them. Uterine pains, sometimes accompanied by flooding, came on a few hours or days previous, gradually increased, and terminated in the ex-

pulsion of the fœtus. During the present pregnancy, she had been much weaker, and more generally indisposed, than before; so much so, that she had not been able to work at all, which was not the case in her former pregnancies. She had had, throughout, severe pain in the lumbar region, and occasionally slight pains in the ovarian and hypogastric regions. The leucorrheal discharge has been, for some months, more abundant, and thicker. For the last two months she had experienced severe cephalalgia, accompanied by extreme heaviness. The appetite, however, was tolerably good; bowels costive; rest indifferent. She had been much troubled latterly by nausea and acidity. Pulse very full.

"On examining digitally, I found the abdomen developed, the uterus rising above the umbilicus, as in the beginning of the seventh month of pregnancy. The vagina was moistened by an abundant secretion. The cervix, in its usual position, more voluminous, and softer, than it is normally at this period of pregnancy, formed a quaggy mass; its surface, of a fungous softness, presented, more especially round the os, which was very open, numerous small indurations, about the size of large pin-heads. On withdrawing the finger it was covered with thick whitish pus. This pulpy, fungous state of the cervix, along with the partial indurations, the purulent discharge, the general symptoms, and the previous history of the case, all indicating the existence of extensive Ulcerative Inflammation of the Cervix, I proposed an instrumental examination. This, however, the patient would not consent to; I therefore ordered her to be bled to twelve ounces, and gave her a mild purgative.

"On the 21st I saw her again. The bleeding had slightly relieved the cephalalgia, and softened the pulse; but all the other symptoms were present, and had more attracted her attention since I had so minutely questioned her. On my again pointing out the necessity of instrumental examination, she no longer offered any objection. The vulva was congested and swollen; the vagina red, tender, and bathed with pus. On getting the cervix between the expanded blades of the conical bivalve speculum, I found that it presented a large fungous ulceration, covered with pus, and bleeding easily on being touched. The entire cervix was covered with luxuriant granulations, and presented a very different appearance to that which ulceration offers in the unimpregnated state. It was a fungous ulceration, softened and broken up as it were. From the regularity of the surface, however, from the absence of uneven, deep-seated induration, and the frankly purulent nature of the secretion, the ulceration was evidently of an inflammatory nature. I therefore touched the entire diseased surface with the nitrate of silver, and ordered astringent vaginal injections, with the sulphate of zinc, night and morning; mild aperients, and a tonic antacid mixture (infusion of gentian and carbonate of magnesia); light diet; complete rest.

"28th. The application of the nitrate of silver was followed by a slight oozing of blood for three days, but by no increase in the local pains. The latter are still severe in the lower segment of the developed abdomen, and in the loins. The yellow discharge is very abundant. She has the same bearing-down pains which preceded her other miscarriages. Same treatment.

"May 4th. I was summoned to Mrs. G.'s residence, and found that she had miscarried, during the previous night, of a seven months' child, which lived a few hours only. The bearing-down uterine pains had never left her from the time I last saw her. The previous afternoon they had been succeeded by regular labour-pains; and the confinement was completed in the course of eight hours, without anything unusual having occurred. I continued to see her for the first two weeks after delivery, during which period no unusual symptom appeared. She suffered, however, more than is generally the case from uterine pain; and the lochial discharge was more than usually abundant.

"June 3rd. She was examined with the speculum. The vagina was very

red and congested, and contained pus. The cervix was voluminous, not very hard, and presented an ulceration as large as a half-crown. The ulceration had a florid fungous surface, but did not offer the pulpy appearance which characterized it during pregnancy. She had still the old pains in the back, and in the hypogastric and ovarian regions, and an abundant yellow discharge; appetite bad; tongue white; feels very weak. The ulceration was touched with the nitrate of silver; injections, with a solution of alum, prescribed, and a saline mixture; light diet; rest, in the recumbent position.

"This, the usual treatment which I pursue in such cases, was persevered in during the month, the ulcerated surface being regularly cauterized once a week with nitrate of silver, or the acid nitrate of mercury. The menses returned at the beginning of the month, and lasted four days. Their manifestation was attended with considerable pain. Towards the latter part of June she had an attack of diarrhœa, then very prevalent, which proved obstinate.

"July 31st. The ulceration was healed; the cervix was still more voluminous than natural, but soft throughout. On opening the lips of the os, and examining its cavity in a good light, there was still seen, however, vivid redness of the internal mucous membrane lining it; which was touched, for the last time, with the nitrate of silver. Slight white leucorrhœa only. The vaginal mucous membrane was of a deep red colour, the body of the uterus rather voluminous, the breasts large, the areola prominent. She had not menstruated since the beginning of June, and was probably pregnant. She stated that she had never been so well since her marriage; she ate and slept well; had no headache, and felt strong. Six weeks later I again examined this patient instrumentally, and found the cervix and its cavity perfectly sound and healthy. There were no morbid phenomena, local or general. The pregnancy was then manifest. It continued to progress favourably; she had no aches nor pains, no vaginal discharge, and continued well throughout its course; very different to what she had been in any of her previous pregnancies. At the full period, she was safely confined of a healthy child, and has since done very well, remaining perfectly free from uterine symptoms." (pp. 212-217.)

For the excellent remarks on these and similar cases, made by Dr. Bennet, we must refer our readers to his work. We will only further observe, that he "firmly believes that most of the abortions which occur in the early months of pregnancy, from diseased ova and placenta, as well as those which are preceded by flooding and the death of the fœtus, are, in reality, the result of inflammatory disease of the neck of the uterus."

The next chapter treats of Inflammation, Ulceration, and Induration, of the Neck of the Uterus, during and after Abortion and Parturition. The subjects brought under notice are, its connexion with rigidity of the os during labour; with laceration and abrasion of the cervix; with flooding; and with the morbid symptoms that follow natural and difficult labour. We must, however, pass over this chapter, as well as the one on Inflammation and Ulceration of the Neck of the Uterus in advanced life, after the cessation of menstruation.

Inflammation and Ulceration of the Neck of the Uterus accompanying Uterine Polypi, is a frequent circumstance, the practical importance of which is well pointed out by Dr. Bennet. He says that the contact of the pedicle and of the narrow extremity of a fibrous polypus on the expanded lips of the os uteri, appears often to produce irritation, and, eventually, inflammation and ulceration. His reasons for this belief are, "the probability that the contact of a morbid growth with so susceptible a mucous membrane would produce inflammation; and that the mere existence of a tumour developed in the substance of the uterus, without any local cause of irritation, is frequently attended with ulceration of the cervix." The presence of ulceration of the cervix, in cases where the interior of the uterus is the seat of a fibrous

tumour, would, we think, very much interfere with the safe dilatation of the os uteri by sponge-tents for the purpose of being able to reach the tumour within, as recommended by Dr. Simpson in the *Edinburgh Monthly Journal of Medical Science*, for January 1850.[1] Dr. Bennet considers the inflammation and ulceration accompanying fibrous polypi to be the principal cause of the local pains, discharges, and constitutional symptoms which attend this affection; and points out that such a state may keep up a congestion of the uterine system highly favourable to the development of the polypus. He has found great benefit to arise from the removal of the inflammatory affection of the cervix. Similar remarks are applied by Dr. Bennet to vascular polypi growing from the cervix. Of these he observes, that the patient is by no means cured when these are removed. "The presence of the polypus is merely an element in the case; of importance, inasmuch as it is probably, in most instances, the cause of the irritation and ulceration of the mucous surface, but having in itself little evil reaction over the system. The distressing uterine and general symptoms which usually exist, and direct the attention of the medical attendant and of the patient to the uterus, are the result of the local inflammatory disease secondarily produced, and can only be removed by its removal." (p. 251.)

While we express our opinion of the importance of the views which Dr. Bennet has promulgated in the chapter before us, we would caution our readers against being so far led away by them, as to be content with palliative means, to the neglect of operative interference, when at all possible. The author himself we cannot accuse of this fault; he appears to judiciously limit the application of his views. "In the cases in which the tumour can be removed, the patient is only half cured if extensive inflammatory lesions are allowed to remain; whilst in those in which the tumour is beyond the reach of instrumental means, the only chance we have of arresting its increase, and of restoring the patient to tolerable health, is our being able entirely to subdue all inflammatory action in the uterine system, thus bringing it to a state of quiescence." (p. 251.) The latter clause of this sentence will be somewhat modified, in the minds of many, by a perusal of Dr. Simpson's paper, to our abstract of which we refer them. Though the introduction of Dr. Simpson's sponge-tents into the os uteri, may be greatly interfered with by the presence of inflammation and ulceration, yet, by attending to Dr. Bennet's suggestions to moderate uterine inflammatory action, the operation proposed by Dr. Simpson may, we think, be sometimes advantageously performed: at any rate, it is worthy of attention, originating from so distinguished an authority. Dr. Bennet relates several illustrative cases; one in which there was a fibrous polypus lying in the vagina, attached by its pedicle to the cervix uteri, and accompanied with extensive inflammatory ulceration of that region, and severe constitutional disturbance. The polypus was removed: and the ulceration healed by cauterization with nitrate of silver. The second case we transcribe.

"Case. *Fibrous Polypus of the Uterus, complicated by Inflammatory Ulceration of the Cervix.* On the 1st of May, 1845, Mrs. D——, aged fifty, came to town, from Somersetshire, by the advice of her medical attendant, to place herself under my care. During eight years she had suffered from uterine hæmorrhage, the intensity of which had gradually increased. She had had several children, the last at the age of forty-two. The two following years she miscarried at three months. After the last miscarriage she was seized with flooding, which returned at each menstrual period to such an extent as greatly to debilitate her; sometimes even producing syncope. At the age of forty-five she ceased to lose blood at periodical periods, but since that time the hæmorrhage has been nearly continual; seldom a day passing

[1] For the substance of Dr. Simpson's paper, see our Reports of the Edinburgh Medico-Chirurgical Society.

without more or less blood being lost. She has presented for some time all the symptoms of extreme anemia; the skin is sallow, the body emaciated; she suffers from palpitations, headach, want of sleep, and extreme debility; and a bellows-murmur is heard over the heart and along the arteries. The digestive functions do not, however, appear much disordered; the appetite is good, and she takes a great quantity of meat, wine, and porter, in order to keep up her strength. Complains of lumbar and hypogastric pains, and of a bearing-down sensation when walking. On examination per vaginam, a pedunculated tumour, as large as a goose's egg, was found situated in the vagina, issuing from the orifice of the os uteri. The examination occasioned a copious flow of blood. Ligature of the tumour was proposed, and gladly accepted, as she had been told that no operation was possible.

"On the 3rd, the bowels having been previously well relieved, I passed a whipcord ligature round the neck of the tumour with great ease. The hæmorrhage during the process was, however, considerable; the blood evidently exuded from the entire surface of the tumour, which was exposed by the mere separation of the labia, and which was of a florid red colour.

"11th. The tumour escaped from the vagina whilst she was making water; the canula and ligature remaining. On exercising traction, I brought down the uterus, but did not bring away the ligature and canula. I was, therefore, obliged to untie the whipcord, and pull it through one of the branches of the latter.

"17th. Examined the os uteri with the speculum, and found a large ulcerated surface on the anterior and posterior lips. The anterior was much more voluminous than the inferior, and was the principal seat of the ulceration. There was no trace whatever of the pedicle of the tumour. Cauterized the ulceration with the nitrate of silver; ordered injections with sulphate of zinc; sesquioxide of iron half a drachm a day, and a nourishing diet.

"On the 25th, she was absolutely obliged to leave town for family reasons, although the ulceration was not healed. I ordered her to use the sulphate of zinc injections carefully for some weeks. The sallowness of complexion was already much modified, and she felt stronger than she had done for some time.

"I subsequently learnt that her general health had very much improved. She still felt pain in the back, which might probably be owing to the ulceration not having quite healed. As, however, I have not again heard from her, it is probable that these symptoms gradually subsided, and that the cervix is restored to a state of integrity". (pp. 254-55.)

The third case is an interesting one of vascular polypus, in which the patient had been long and unsuccessfully treated for inflammation of the womb, without having been examined by the speculum. A vascular polypus was discovered by Dr. Bennet, conjoined with extensive inflammation and ulceration of the uterine neck. We can only quote the conclusion of the case:—

"By means of a pair of speculum forceps, with a small serrated extremity, I broke down, and brought away, by torsion, the small tumour, and the greater part of its pedicle. A few drops only of blood were lost. I subsequently cauterized the ulcerated surface, which appeared to extend to the entire depth and circumference of the cavity of the uterine neck.

"From this time the case resolved itself into one of simple inflammation and hypertrophy of the cervix, along with deep-seated ulceration; and was treated by the means which I usually employ—cauterization at variable intervals, emollient or astringent vaginal injections, hip-baths, leeches to the inflamed cervix, and rest in the recumbent position. Both the inflammation and ulceration, however, proved very rebellious to treatment. It was only by very slow degrees that the inflammatory hypertrophy of the lips of the cervix subsided. As this change occurred, the cervix, which, as we have

seen, was very low and retroverted, gradually rose in the pelvis, and partly assumed a more normal direction, the ulceration likewise cicatrizing.

"The ulceration external to the cavity of the os healed in the course of a few weeks, but the internal ulceration proved very obstinate, and the more so the deeper it was situated. It was only after an almost uninterrupted treatment of five months that the cavity of the cervix was completely healed. As it cicatrized it closed, until, from being long sufficiently open for an inch in depth to admit a large-sized drawing-pencil, it became so contracted as merely to admit the uterine sound. For the last six weeks of the treatment, the ulceration appeared limited to a small deep-seated surface, probably that from which the polypus sprung, near the inner orifice of the cavity of the uterine neck. At the time the local treatment was brought to a close, the cervix was at least two inches higher in the pelvis than when I extirpated the polypus. It was also very much smaller, very much less retroverted, and presented no evidence of inflammatory induration, although still rather larger and harder than natural. The vagina was quite healthy. All the uterine organs were, however, still very sensible to the touch; but in this respect they merely participated in the exaggerated state of nervous sensibility of the entire economy. Ever since the evulsion of the polypus, there had been no continued sanguineous discharge after the monthly periods, although the purulent discharge was often streaked with blood, especially after cauterization. The menses flowed rather abundantly for five or six days, and were then replaced by the purulent or sanguineo-purulent discharge from the ulcer.

"The slowness of the process of cicatrization in this case may be accounted for by two circumstances,—first, by the very lengthened existence which I feel warranted in ascribing to the local disease; and secondly, to the very debilitated state of the general health, depraved by fifteen years of flooding and suffering. Not only was the patient so reduced by the continued loss of blood, morbid and artificial, that loud anæmic murmurs were heard in the heart, and in the large bloodvessels, but the digestive and nervous system had received a severe shock. The stomach could scarcely bear even the lightest food, and that only in very small quantities; the action of the bowels was irregular, they were often relaxed and irritable; and no stimulant, or dietetic or medicinal tonic, could be borne. She had been salivated more than once, and attributed the extreme susceptibility of the digestive system partly to this cause. Iron, quinine, iodine, etc., were all tried at various periods, but as often suspended from the disturbance they created in the economy. The intercostal, the sciatic, the crural, the dorsal and other nerves, were all at different times the seat of severe neuralgic pains, which generally proved rebellious to local therapeutic agents. They seemed to change their seat, or disappear, under the influence of atmospheric variations, or of mental or bodily conditions of a still less tangible nature, and were evidently the result of the general anæmic state of the economy." (pp. 260-3.)

We must pass over the chapters on Inflammation of the Vagina and Vulva and on the Connexion between Inflammation of the Uterus or its Neck, and Functional Derangements and Displacements of the Uterus, with merely recommending them, though there is, in the latter chapter, much repetition of what has been already said.

Syphilitic Ulcerations of the Neck of the Uterus have, according to Dr. Bennet, escaped the notice of most writers on uterine diseases. He divides them into two classes: 1. The true Hunterian chancre, which, he believes, to be very rare: and 2. Non-chancrous ulcerations, which frequently complicate blennorrhagia and the secondary forms of syphilis.

The complication of secondary syphilitic symptoms, with ulceration of the cervix uteri, was observed by Dr. Bennet in 1843, while in charge of a female skin-ward of seventy-five beds, in which there were always a great number of syphilitic skin diseases. He examined them with the speculum, and was led

to adopt this course "by finding, *on inquiry*, that several of those patients who presented no syphilitic disease of the external genital organs, except trifling leucorrhœa, were labouring under the symptoms which I have enumerated as indicating slight inflammation and ulceration of the cervix uteri. On examining these latter patients, I found the cervix ulcerated and slightly indurated, and it then occurred to me that the others might be similarly diseased, although they had not directed my attention to any symptoms of uterine disease. To my great surprise, I found that three out of four—perhaps more—also presented ulcerations of the cervix. Most of these patients were young women who had either never borne children, or had been confined several years previously, and were under treatment for syphilitic psoriasis, lichen, rupia, etc. When questioned narrowly, they *all* admitted that they experienced slight hypogastric pain; that congress had been rather painful for some time; some, that they had likewise a slight leucorrhœal discharge. They had not, however, paid any attention to these symptoms.

"What was the nature of these ulcerations? Were they syphilitic, modified chancres, or secondary ulcerations; or were they merely inflammatory sores? In their appearance, I myself could discover little or no difference from the ulcerations observed in non-syphilitic patients, and was therefore inclined to deny their general syphilitic nature. Some were large, some small: some had a well-defined margin, others not; some were covered with large unhealthy granulations; others with small, florid, healthy granulations; whilst some, again, presented a kind of pseudo-membranous film." (p. 324.)

Dr. Bennet differs from M. Gibert, who thinks that these are modified chancres. As to their being secondary, he does not think they are so in a large number of cases. Their nature he then considers to be inflammatory. He concludes this chapter by the following propositions:

"First. The real classical chancre, presenting its ordinary physical characters, is *excessively rare* on the cervix uteri.

"Secondly. Ulcerations presenting the characters of the inflammatory ulceration are, on the contrary, excessively common in patients labouring under blennorrhagia, or primary, secondary, and tertiary syphilis.

"Thirdly. Some few of these ulcerations may be primary or secondary, but the very great majority are merely inflammatory." (p. 329.)

Cancer of the Uterus. The diagnosis has not, according to Dr. Bennet, arrived at a very high degree of perfection. Those who have written on the disease, would appear to have described hypertrophied induration of the neck as the incipient stage of cancer; while Dr. Bennet thinks this stage remarkable for its quiescence, and that patients seldom apply for relief until a cancer has far advanced. He gives copious extracts from the works of Sir Charles Clarke, Dr. Ashwell, and Dr. Montgomery, showing the prevalence of the opinion, that cancer may be arrested in its early stage; and he subsequently quotes several of their cases, making remarks on them.

His critical examination of the physical data on which the views of most other writers are founded, we quote entire:—

"The principal anatomical changes stated to characterize Cancer in its incipient, non-ulcerated stage, by the three authors I have quoted, are as follow: A firm tumour, of a rounded form, springing from the surface of the cervix, or embedded in it, or general enlargement and hardness of the cervix; an open, gaping os, which admits the extremity of the finger; perfect freedom of the vagina from thickening or disease.—(Sir Charles Clark.) Hard tumour of the entire cervix; puckering and hardening of the edges of the os, and hard tumours deposited in any portion of the cervix; a dull white, or slightly grey, colour of the mucous membrane covering the cervix.—(Dr. Ashwell.) Margin of the os hard, slightly fissured, projecting into the vagina, and irregular; in the situation of the muciparous glands are felt several small, hard, and distinctly-defined projections, like grains of shot, painful on pressure; cervix slightly enlarged, and harder than natural; cir-

cumference of the os turgid, of a deep crimson colour, the projecting points being bluish; no thickening or disease of vagina, or consolidation of the uterus to the pelvic contents.—(Dr. Montgomery.)

"All these are anatomical conditions which may be produced in the neck of the uterus, and are daily produced, by inflammation and puerperal laceration of its orifice.

"The enlargement of the cervix described by Sir Charles Clarke is evidently that produced by inflammatory hypertrophy; and the two chapters which he devotes to 'Carcinoma of the uterus, and its treatment', in the non-ulcerated stage, are clearly descriptive, in almost their entire extent, of inflammatory hypertrophy alone. The 'form' in which a firm tumour springs from the surface of the cervix, is probably hypertrophy limited to one lip; whilst the form in which there is enlargement and general hardness of the cervix, is general hypertrophy. If any evidence, beyond the mere description of the state of the neck of the uterus, were wanted to indicate the inflammatory nature of these changes, it would be found in the open, gaping state of the os, admitting the end of the finger. This is the characteristic condition of the os uteri in inflammatory hypertrophy.

"Dr. Ashwell, falling into the same error, admits the malignant nature of simple 'hard tumour of the cervix', as he designates the condition described by Sir Charles Clarke. He considers also puckering and hardening of the edges of the os, with the presence of hard tumours in any region of the cervix, as characteristic of cancerous disease. Dr. Montgomery's description of incipient Cancer seems limited to the latter changes.

"Puckering of the edges of the os has always appeared to me merely the result of laceration of the os and cervix during labour, and of subsequent inflammation of the lobules into which the margin of the os and cervix is thus accidentally divided, as I have elsewhere explained (p. 225).

"The cervix is, in reality, frequently lacerated; and if Dr. Ashwell has not observed this to be the case (see page 433 of his work), it must be that, on the one hand, he has not analyzed with sufficient care the results furnished by digital and instrumental examination; and that, on the other, he has mistaken for incipient Cancer the cases in which the lacerations, not having healed, have led to a puckered, indurated state of the edges of the os. When laceration occurs in abortion or labour, if the parts involved do not return to a healthy state, but remain ulcerated and inflamed, lobes are formed around the os, separated from one another by fissures more or less deep. These lobes, although merely inflamed, may become of a stony hardness; and when this occurs, the hardness is very erroneously supposed to characterize schirrus, and is cited as an evidence of the malignant nature of the disease. If the lobes thus formed around the os, and thus indurated, be considerably hypertrophied, they present exactly the sensation to the touch which Dr. Montgomery compares to the ends of the fingers brought closely together, and which he considers to characterize the second stage of Cancer.

"The isolated nodosities described by Dr. Montgomery may certainly be cancerous nodules; but they may also be merely muciparous glands inflamed and indurated. In fact, their being of a crimson hue would seem to show that such is really the case, inasmuch as cancerous growths in mucous membranes are rather characterized by a bleaching or whitening of the tissues which they attack.

"Thus, a critical analysis of the anatomical changes ascribed to incipient Cancer, shows that, on the one hand, these changes present nothing special, nothing that can be said to characterize, as malignant, the case in which they are found; whilst, on the other, it shows that they are constantly met with as the result of inflammation." (pp. 350-354.)

The progress of the so-called incipient cancer, its quiescence for years, its yielding to treatment, afford Dr. Bennet additional confirmation of his views. He concludes that cancer is as untractable in the womb, as in other

organs, and much more prompt, according to Dr. Hughes Bennett, to enlarge, soften, and ulcerate.

The symptoms which really characterize incipient cancer, Dr. Bennet is unable to describe, as he has never seen a case of the kind: but he would "expect to find shot-like, pale, indolent indurations, all but insensible to pressure, strewn irregularly over the cervix; or an irregular hard tumour, similarly characterized, developed on its surface. This description of what I should expect to find is drawn from the state of the *non*-ulcerated parts of carcinoma uteri when examined in its more advanced or ulcerated stage." (p. 368.)

The chapter concludes with some remarks on ulcerated cancer of the cervix uteri, and on cancroid growths. Dr. Bennet's observations lead us to hope that the non-cancerous nature of certain diseased conditions of the uterus may be so far established by him, as to afford encouragement to the practitioner, and to relieve many patients from the groundless apprehension that they are labouring under malignant disease. Dr. Bennet's partiality for inflammation of the uterus, perhaps leads him sometimes a little too far, and may, if his views be carried out by others, tend occasionally to an error of diagnosis in the opposite direction. What he has written on the diagnosis of Cancer of the Uterus, should be compared with the opinions of other authors, and brought to the test of experience. In this way, either his opinions may be confirmed, or we may arrive at a more precise knowledge of the incipient stages of the affection. It is certainly very questionable, whether true incipient cancer be really so curable, as is asserted by many writers.

Treatment of Inflammation of the Neck of the Uterus. The local remedial measures principally consist of *vaginal injections, hip-baths, local depletion, and the use of caustics.* Ulceration or hypertrophy do not prevent them from being used.

*Vaginal injections*, properly used, are very valuable: and cold water alone is often very beneficial, not only in washing away the mucus which tends to stagnate, but as a powerful tonic and astringent. To produce an anodyne effect, a few drops of laudanum, or a drachm or two of tincture of hyoscyamus, may be added to the water; but Dr. Bennet remarks, that a more powerful sedative effect may be obtained by the injection of anodynes into the rectum, which is in accordance with our experience. As an astringent injection, he prefers alum, generally in the proportion of a drachm to a pint of water.

However useful injections are in cleansing the vagina from all morbid secretions, in diminishing uterine irritation, and in removing vaginal and vulvar irritation, they are generally powerless to subdue confirmed inflammation of the cavity of the cervix: mainly because the region affected is not reached. Dr. Bennet admits that some of the milder cases of ulceration, or non-ulcerative inflammation may be treated, when recent, by emollient and astringent injections, and attention to the general health; but in these cases, he says, the treatment cannot be depended on, and is more tedious than that by caustics.

In order that the full benefit should be derived from vaginal injections, Dr. Bennet recommends, that the patient should be placed in the horizontal position, with the pelvis slightly elevated. The instrument he recommends is a pump syringe, with which any quantity of fluid can be thrown in. To the inefficiency of small syringes, which have to be frequently introduced, in order to produce any effect, he attributes the discredit into which the use of vaginal injections has fallen. For the poorer classes, he recommends a large metal syringe with a long curved extremity. In all cases, we prefer a nicely-rounded glass syringe, about half an inch or more in diameter. To ascertain whether the injection reaches the entire extent of the vaginal cavity, Dr. Bennet recommends that the patient should use an aluminous injection,

an hour or two before being examined. "Unless the vaginal secretion be very profuse, all that part of the vaginal cavity, which the injection has reached, will be contracted, so as to admit with difficulty the introduction of the finger. If, however, it has only washed the lower part of the vagina, the finger, after passing the contracted region, finds the upper part moist and uncontracted." (p. 282-3.)

*Leeches* are a valuable means, both of moderating intense inflammatory action, and also of diminishing or removing the congestion which frequently attends menstruation, when the cervix or body of the uterus is the seat of inflammation. Dr. Bennet thinks them more certain than *scarification;* and the flow of blood may be arrested easily by an alum injection. We generally prefer depletion by the scarificator, by which, when properly used, a sufficient quantity of blood can always be obtained. Nurses rarely apply leeches properly, and the medical attendant has seldom leisure to superintend their application.

Dr. Bennet has been able to test the efficacy of local depletion, on a large scale, in the Western Dispensary; and has arrived at the conclusion, "that local depletion, although a great adjuvant, is by no means indispensable to the successful treatment of inflammation of the uterus and of its cervix. My dispensary patients, treated without leeches, get well, as do those whom I attend in private life, and with whom I employ depletion. Merely the latter get well sooner, and with less suffering; because, by the local abstraction of blood, the inflammation is sooner favourably modified, and the morbid congestions connected with menstruation, which so much aggravate the sufferings of patients, and so greatly retard their recovery, are prevented or removed.

"At the same time, I have become convinced, through the experience thus acquired, that if, by frequent leeching, or by a too copious abstraction of blood from the *occasional* application of leeches, the general strength of the patient is permanently reduced; she is placed even in a more unfavourable condition than the one in whom depletion is never employed." (pp. 386-7.)

To derive benefit from leeches, they should be employed once or twice at the commencement of the treatment, while the inflammation is acute: they are also indicated in the exacerbations before, during, and after menstruation. The uterus seems sometimes incapable of expelling the blood, which has accumulated in it at the catamenial period; and in this case leeches should be employed, so that the bleeding may form a part, as it were, of the monthly exudation.

While entertaining a high opinion of the benefits which may be produced by a judicious application of leeches, Dr. Bennet thinks their use may be often omitted; and this he is compelled to do in dispensary practice. He fears that local depletion will be rather abused than neglected, and gives some excellent cautionary remarks on this subject:—

"I am continually seeing cases in which, in my opinion, it is, or has been, carried very much too far, and in which the constitution of the patient has been greatly weakened by the repeated abstraction of blood. This is an error the more to be guarded against, as the frequent repetition of local depletion does not remove nutritive hypertrophy of the neck of the uterus, or cure ulceration. I have a case now under my care, in which the patient, a lady, aged thirty-nine, had leeches applied to the cervix twice a week *for five years*, without the ulceration or hypertrophy being removed,—at least, I found both these morbid conditions existing, to a very decided extent, when I examined her; and by the symptoms which had been present from the first, their origin could clearly be traced back many years, probably fifteen or twenty. She was reduced, by this treatment, to a very low state of anæmia, the blood being in a perfectly serous condition. I have repeatedly seen the same state of the general system induced by the repeated internal application of leeches,

blindly followed up, for eight or ten weeks, on theoretical grounds only, and irrespective of the effects produced, the local disease remaining unmodified.

"The application of leeches every week, or twice a week, for a lengthened period, appears to me sometimes to keep up local congestion, thus tending rather to increase than to diminish the nutritive hypertrophy of the cervix and uterus, to which chronic inflammation gives rise. Leeches, when applied to the neck of the uterus, not only remove the blood which it contains, but appear to establish a flow to that organ from the abdominal organs, as seems indicated by the patient generally feeling a dragging sensation all over the lower abdominal region, when the leeches begin to fill. This drawing of blood from the pelvic viscera, is in no degree prejudicial, when there is subacute inflammation, or even congestion of the uterine system; because the surrounding organs are also more or less congested, as we have seen, and the subtraction of blood from them, as well as from the uterus, relieves the entire abdominal circulation. But this is no longer the case, when all acute inflammation has been subdued, and chronic inflammatory hypertrophy and induration, with atonic ulceration, remain. These are conditions which must be remedied by other means of treatment,—repeated local bleeding, irrespective of menstrual congestion, merely keeping up a flow of blood to the uterus, and debilitating the system, not only without benefit, but with positive injury to the patient.

"The tendency to abuse the use of leeches, shown by some practitioners, who have adopted it as an ordinary means of treatment, is promoted by their generally entrusting the application of the leeches to midwives, as they are unable to judge of the effect produced. It is too much the custom with such practitioners to prescribe a 'course of leeching', as they would a 'course of medicine', giving directions for leeches to be applied once or twice a week, for one, two, or more months, without ascertaining whether the continuance of depletion is necessary or not." (pp. 389-390.)

The leeches should be applied by the practitioner himself, both with the view of forming an opinion as to the propriety of their repetition, and also to avoid the pain which is often produced, when they are applied by a midwife. The proper mode of application is thus described:

"Leeches may be applied to the cervix uteri by means of open tubes, or of tubes closed at their extremity so as to prevent the possibility of their escape. In the latter case, the closed end has several small holes, of sufficient size to allow the leeches fixing on the part with which the tube is placed in contact. In the former, the ordinary conical or cylindrical speculum is the best instrument that can be used. The application of leeches by means of the closed leech-tube is generally very tedious, and the leeches do not fill by any means so promptly as when an open tube is used; moreover, it does not always prevent their fixing in the cavity of the cervix, if the tube is in contact with the open os uteri. An open tube is certainly much preferable.

"When the cervix has been brought within the field of the instrument, and the os, if open, has been closed as above directed, the leeches should be put into the speculum and pushed close up to the cervix by a plug of sponge or cotton; they are thus imprisoned in the instrument between the cervix and the plug. All that are inclined to bite do so immediately, whilst those that are not, generally work their way out in the course of two or three minutes, between the vagina and the speculum. When leeches have thus come away, it is of very little use to re-introduce them, as they seldom take. The plug may be left in about fifteen minutes, and on being withdrawn it will generally be found that the leeches have filled, and that some have already come away. If the plug is allowed to remain longer, the leeches that have filled, generally work their way out by the side of the instrument. If they have got between the vagina and the speculum, and have not appeared externally, they fall into the speculum as it is slowly withdrawn. The entire operation need not last more than half-an-hour, from first to last." (pp. 392-393.)

*Cauterization.* This seems the only remedy on which Dr. Bennet would depend for the cure of inflammation of the cervix uteri, especially when accompanied with ulceration and hypertrophy. We would be inclined to think, however, that vaginal injections, rest, and attention to the general health, may prove of sufficient efficacy in a greater number of cases than he supposes. When the disease obstinately resists these measures, then cauterization is doubtless necessary. But there is one circumstance in particular pointed out by Dr. Bennet, which gives a high value to cauterization; we refer to the frequent existence of ulceration within the cavity of the cervix, and the impossibility of reaching this by injections. On this point we will quote the author's remarks. "The last part to heal in an ulceration of the neck of the uterus, is that which dips into the cervical cavity, inside the os. Thence the absolute necessity of separating the lips of the os with a bivalve speculum in a good light, and of thus carefully exploring the state of the cavity of the cervix before the disease is pronounced cured. Unless this precaution be adopted, in a very considerable proportion of the cases treated, the ulceration will be only partially cured, and what is erroneously considered a relapse will occur in the course of a few months. In reality, the relapse in such cases is nothing more than the disease creeping out of the cavity of the cervix, where it had been lurking from the first.

"A few years ago, in this country, ulcerative disease of the uterine neck was seldom detected, even by the most eminent uterine practitioners of the day. In a large proportion of the chronic cases of this description, for which I was then consulted in private practice, the very existence of the inflammatory ulceration, from which the patient had been suffering for many years, had not been even suspected, notwithstanding many valued opinions had been taken. Since the attention of the profession was directed, in the first edition of this work, to the frequency of this form of disease, and since the doctrines therein promulgated have been adopted and acted upon by many leading practitioners, I begin to see fewer instances of non-detection of ulcerative disease. I am still, however, continually witnessing cases in which ulceration has thus been imperfectly recognized and treated, the external or cervical ulceration only having been attended to, and the internal ulcerative element remaining unperceived. This error is committed in Paris as well as in this country. I never recollect seeing the cervical cavity examined, as I now examine it, when I held office in the Paris hospitals; and in what has been written by French pathologists on uterine diseases, there is no evidence of their being acquainted with the fact of ulceration so frequently penetrating and lurking into the cavity of the cervix. On the contrary, they mistake for indications of internal metritis the discharges which exist when the cervical cavity is inflamed or ulcerated." (398-9.)

The principal cauterizing agents—viz: the nitrate of silver, the mineral acids, and more especially the acid nitrate of mercury, potassa fusa, and potassa cum calce, and the actual cautery, are passed in review by Dr. Bennet.

Nitrate of silver has very limited powers as a cauterizing agent; but it is often an useful application in bringing on healthy action in ulcers. It moreover acts as an astringent on the surrounding tissues: and, "even when recourse is had to other caustics, the nitrate of silver, solid or in solution, is a most useful agent as a topical application in the interval of their application. The more powerful caustics should be used only at lengthened intervals, to rouse or modify energetically the vitality of the diseased surface; and it is by the nitrate of silver that the new action thus created should be moderated and guided. Its occasional employment serves as a dressing to the ulcerated surface, prevents its becoming irritable and unhealthy, keeps down the granulations, and thus powerfully assists in bringing about cicatrization." (pp. 403-404.)

The acid nitrate of mercury is rather more efficacious in its action than other mineral acids, and is much used by French practitioners. It is pre-

pared by adding to 100 parts of mercury, 200 parts of nitric acid ; dissolving the mercury by the aid of heat, and evaporating to 225 parts. This preparation is a dense solution of deuto-nitrate of mercury, in an excess of acid, and contains 71 per cent. of the deuto-nitrate. It is much more powerful than nitrate of silver. "It gives rise to a white eschar, which falls piecemeal about the sixth day, and sometimes not until later. I generally use it pure, but sometimes diluted with a little water. In the former case, the beneficial effect is only obtained by the seventh or eighth day, and it should not, consequently, be reapplied sooner. It is seldom however advisable to reapply the acid nitrate several weeks in succession. Generally speaking, ten days or a fortnight should be allowed to elapse between two cauterizations, the nitrate of silver, solid or in solution, being used in the interim. When the ulceration is large, and the granulations are redundant and unhealthy, this caustic exercises a very prompt and beneficial influence, often cleansing and modifying the sore in one application, even when the nitrate of silver has failed. In slight ulcerations, however, it is too powerful a remedy, and may aggravate the inflammation if injudiciously employed." (p. 405.)

The mineral acids require care in their application ; as the caustic, if allowed to run on the cervix and vagina, may produce very painful inflammation and ulceration. The acid should be applied by means of a dossil of cotton, at the end of a small and narrow platinum fork, or of a wire ; and any superfluity of acid should be pressed out from the cotton, before it is used.

The caustics above enumerated will often serve, with judicious general treatment, injections, and local depletion, to bring on a healthy state of the parts ; but in some instances, especially in ulceration of the cavity of the os uteri, the disease proves rebellious. The more powerful agents, to be employed in such cases, are potassa fusa and the actual cautery.

Potassa fusa was introduced into practice for the treatment of intractable ulcerations, and of chronic inflammatory hypertrophy of the cervix, by M. Gendrin of Paris. Its use is, however, confined to a very few practitioners ; and Dr. Simpson of Edinburgh appears to be the only one, in this country, who has given it a trial, and reported its efficacy. Dr. Simpson's testimony tends to show the utility of the remedy. In order to obviate the difficulties and dangers, which, unless great care be taken, result from the use of so powerful and fusible a caustic as the hydrate of potassa, Dr. Bennet has been endeavouring, for some years, to render its application more safe ; and he thinks he has succeeded.

Dr. Bennet gives a clear account of the method followed by M. Gendrin, and of the modification introduced by himself. M. Gendrin preferred potassa cum calce, made into a paste, with a few drops of alcohol, and applied it in the following manner :—

"A large conical speculum being first introduced, the uterine neck is made to enter its orifice ; or should the cervix be too voluminous, the speculum is firmly pressed on the part which it is intended to cauterize, great care being taken not to enclose a fold of the vagina between the rim of the speculum and the cervix. About as much of the paste as would cover a fourpenny-piece, a line in thickness, is placed on a triangular piece of diachylon plaster, one end of which is inserted in the cleft extremity of a common bougie. The caustic paste is then carried, by means of the bougie, to the cervix, and applied to the centre of the part comprised within the speculum. With the long forceps, cotton is placed carefully all round the spot on which the caustic paste is applied, so as to completely protect the neighbouring parts ; and the bougie having been withdrawn, the speculum is two-thirds filled with cotton or lint, which is firmly pressed against the uterine neck. The speculum is then slowly extracted, the cotton which fills it being at the same time forcibly pushed back in the vagina with the forceps, as the speculum is withdrawn, so that the vagina remains thoroughly plugged. If this is carefully done, the caustic cannot fuse, and injure the parietes of the vagina. In about

fifteen or twenty minutes, the cotton or lint must be gradually withdrawn, by means of a bivalve speculum gradually introduced, and an eschar, of the size of a shilling, or rather larger, will be found where the caustic was applied. The vagina should then be washed out with a little tepid water, complete rest in bed enjoined, and emollient injections employed until the separation of the eschar, which takes place from the sixth to the eighth or tenth day.

"Enlightened by subsequent experience, I should now reject entirely this mode of applying the Vienna paste, even did I employ the preparation, which I have long ceased to do, having discovered a more safe and efficacious way of applying the potassa cum calce. Although I have for years seen M. Gendrin follow this mode of operation, and have myself often adopted it, without once witnessing the extension of the eschar to the vagina, still I think it demands too much caution and instrumental experience to be retained; especially as it is possible to apply potassa fusa, either combined with lime or alone, with equal efficacy and greater safety, in a more simple manner.

"The extraction of the speculum, after the application of the caustic paste, evidently depriving the vagina of the protection which the instrument affords it, I first determined to leave the speculum in situ until the process of cauterization was entirely accomplished. With this view, after getting the cervix well into the field of the large conical speculum, I introduced pledgets of cotton, steeped in acetic acid and water, between the speculum and the cervix in its entire circumference, so as to completely isolate the organ. I then, as before, applied the paste to the surface to be cauterized; and, when the desired effect was obtained, carefully wiped it away, washed the eschar with the diluted acetic acid, and, placing on the latter, as a dressing to prevent its coming in contact with the surrounding parts, a large pledget of cotton soaked in the vinegar-and-water, and tied to a piece of strong silk, withdrew the speculum.

"This plan succeeded so well, and appeared so thoroughly to isolate the cervix, and to prevent the possibility of the surrounding parts being compromised, that I determined to use the pure potassa fusa instead of the potassa cum calce, on account of the greater facility of applying it to any given part, and of graduating the intensity of its action. As an additional precaution, however, I first applied the nitrate of silver freely to the lower lip of the cervix, in order more effectually to guarantee it from the liquefied potassa, which invariably runs on the most depending part when the pure hydrate is used. The eschar formed by the nitrate of silver, superficial as it is, prevents the part which it covers from being acted upon. The lower lip of the neck of the uterus being protected by the nitrate of silver eschar, and the vagina by the pledgets of lint soaked in dilute acetic acid and pushed carefully in between the lower valve or circumference of the speculum and the cervix, there can be no risk of the potassa, although so very fusible, extending to parts which it is not intended to cauterize. I long used it exclusively, and in a great number of cases, in this manner, without its action once extending to the vagina. When thus applied, however, it is always advisable to leave for a few hours a pledget of lint soaked in dilute acetic acid in contact with the eschar, as uncombined particles of caustic lying on it might otherwise slightly cauterize the vagina. This has happened to me in one or two instances, in which I had omitted to take the precaution in question. The pledget or dressing may be withdrawn in the course of a few hours, and a pint or two of tepid water injected.

"In giving the above directions, I have supposed the patient to be lying on her back when examined, and the pelvis to be elevated so as to admit of easy and thorough inspection. In this case the cervix is, necessarily, the most depending part of the canal represented by the speculum and the vagina; and, consequently, any fluid which runs off from the cervix has a tendency to gravitate on to the vaginal cul-de-sac. Hence the necessity of taking the

above precautions. The pelvis might, it is true, be elevated to such an extent as to render the vaginal canal dependent, especially if the patient were lying on the side; and this position would diminish the danger of the potassa running on the vaginal cul-de-sac; but as it renders the inspection of the cervix uteri and all surgical manipulations difficult, I reject it without hesitation. When about to use so powerful an agent as potassa fusa, we cannot see too clearly and satisfactorily the state of the parts on which we have to operate. Otherwise, all is doubt and danger." (pp. 409-12.)

Dr. Bennet has subsequently found it more advantageous to use potassa cum calce, which, with the assistance of Mr. Squire of Oxford-street, he has had fused into cylinders like those of nitrate of silver. Their action is energetic, and as prompt and deep as potassa fusa; and they require less precaution: "All that is necessary, is to see the cervix well isolated in the speculum, to wipe off the sanies that oozes from the surface cauterized, and then to apply a cotton pledget, moistened with vinegar and water, which is to remain as a dressing on the withdrawal of the speculum. These precautions are necessary, as, for two or three minutes after the application of the caustic, a straw-coloured fluid exudes, especially if it has been carried into the cervical cavity, which may slightly cauterize the parts with which it comes in contact." (p. 413.)

The effects produced by the use of potassa fusa, or potassa cum calce, are, "a profound modification of the vitality of the diseased tissues, and the substitution of a healthy ulceration for a morbid one, with a tendency to indefinitely perpetuate its existence." The ulceration, thus modified by the cautery, may heal without the employment of any further means; but Dr. Bennet thinks it injudicious to depend on this so as to forego the subsequent dressing of the sore. He says: "I have, in many cases, tried to ensure the continued improvement of patients who could not remain long with me, by resorting to severe cauterization, and then allowing them to suspend local treatment for a few weeks, so soon as they had recovered from its immediate effects; but have generally failed, the diseased condition evidently not improving, or only slightly improving, for want of subsequent treatment." (p. 416.)

Dr. Bennet generally applies a small cylinder to the cavity of the neck of the uterus, much less in size than the common nitrate of silver cylinders; and he only leaves it a few seconds in contact with the diseased surface, as its object is not to create a slough, but profoundly to modify its vitality. The application may sometimes produce a greater narrowing of the os uteri than exists in the healthy state; but this does not seem permanent.

The actual cautery was recommended by Celsus, in the treatment of ulcers of the prolapsed uterus; and the same means of treatment has been advocated by several modern surgeons. M. Jobert de Lamballe appears to have been the first to adopt these suggestions, and to have employed the actual cautery for many years, with great success, in simple ulceration, as well as in severe inflammatory hypertrophy of the neck of the uterus. The action of the actual cautery appears identical with that of the potassa fusa, although M. Jobert thinks that the former possesses some peculiar advantages. Dr. Bennet has found both remedies free from risk or danger in his hands: and, in an experience of twelve years, he has only once seen serious inflammation occurring as a sequela; and even here, the results can scarcely be fairly attributed to the means employed. This was a case, in which inflammation and abscess arose in the lateral ligaments, twelve days after the application of the caustic, and at the time of the appearance of the menses. But it is by no means certain that it was not merely a coincidence—perhaps an usual aggravation of the disease at the menstrual period, but located in the lateral ligaments instead of in the uterus. Dr. Bennet does not pretend to claim, for the operation of cauterization, absolute immunity from danger. "Cauterization of the cervix, and especially deep cauterization, is *an operation*, and, like all operations, surrounded with danger. It must not, there-

fore, be either injudiciously resorted to, or carelessly carried out. Although my own practice has hitherto been free, or all but free, from serious accidents, the same immunity cannot always be expected. Indeed, I learnt recently from M. Gendrin, that within the last few years he has had several cases of acute metritis, and of abscess in the lateral ligaments, the evident and immediate result of deep cauterization. But he also tells me that he had seen the same results follow the use of the nitrate of silver, and of injections ; and I may mention that the two most severe instances of acute metritis that I have myself witnessed for some time, in the unimpregnated womb, occurred after the use of weak astringent vaginal injections.

"It is clear, from what precedes, that no surgical interference with the womb, however simple, is absolutely free from some slight risk. No such means of treatment, therefore, should be resorted to unless rendered necessary by the state of the patient ; but, at the same time, we should not shrink from resorting to those remedial agencies which experience teaches us to be the most efficacious. We must bear in mind that, in order to restore to health a person suffering from severe disease, which can only be removed by surgical treatment, generally speaking, there is considerable risk and danger to be encountered ; whereas, in the surgical treatment of uterine disease, the risk is so slight that it scarcely deserves to be taken into consideration." (pp. 425-6.)

The possibility of danger resulting from the use of the potent means so ably advocated by Dr. Bennet will, we think, tend to make many pause before applying these remedies. Milder measures should first have a fair trial, and if these fail, then the more severe means may be resorted to.

Hypertrophy and induration may sometimes be removed by the subdual of both deep-seated and superficial inflammation : but sometimes they prove obstinate, and then it is necessary to try other remedies. Dr. Bennet has found but little benefit from the use of iodine or mercurials, external or internal ; and depends most on the use of potassa fusa for the purpose of making a deep eschar on the hypertrophied cervix. The object in view is thus explained : "I must, however, *most emphatically* guard practitioners against an error into which there would appear to be some danger of their falling, from misinterpretation of my views. I wish it to be most distinctly understood that I do *not propose to destroy* the hypertrophied cervix by cauterization, but merely to set up an artificial eliminatory inflammation, by means of an eschar or issue, of *limited extent*, established in the centre of the hypertrophied region. I do not calculate, in the remotest degree, on the destruction of tissue to which the caustic or cautery gives rise, for diminishing the size of the hypertrophied cervix ; but solely and entirely on *the inflammation subsequently set up*. Any attempt to actually destroy the hypertrophy, by direct cauterization, appears to me both dangerous and unnecessary ;—dangerous, because I should be afraid that the intensity of the reactional inflammation would be so great, as often to extend to the uterus or to the lateral ligaments, and because I consider it next to impossible always to limit the action of the caustic when applied with such profusion ;—unnecessary, because a mere eschar, of the size of a shilling, will equally well answer the purpose of reducing the hypertrophy. It may perhaps be necessary to apply it several times ; but of what consequence is prolonging for a few weeks the treatment of a disease which must have existed for years to require treating at all by such agents, compared with the danger of perforating the vagina and causing peritonitis, or of giving rise to intense metritis." (pp. 430-1.)

The extent to which we have carried our analysis of Dr. Bennet's work, prevents us from doing more than refer our readers to his remaining observations on the local and general treatment of the various forms of uterine inflammation.

Before concluding, however, we must quote a paragraph from his APPENDIX on the PHYSICAL EXAMINATION OF THE UTERUS AND ITS APPENDAGES. We allude to the FORM OF THE SPECULUM, which is a very important consideration. Dr. Bennet generally employs the bivalve speculum, as ingeniously modified by Mr. Coxeter.

"The bulging of the vagina between the open valves of the bivalve speculum renders it of no use in the cases in which this occurs. Mr. Coxeter has met the difficulty, by very ingeniously combining the conical and bivalve specula. He has made an instrument which, when closed, represents the No. 3 conical speculum, slightly flattened transversely. The cone, however, is composed of two valves, which can be separated to any extent by means of a hinge. We thus get the side protection of the conical, and the expansive power of the bivalve speculum. This is, indeed, a most valuable instrument, and has enabled me to discard, nearly entirely, the largest conical size. It is more especially applicable, in the same class of cases:—during pregnancy, when the vagina is more than usually relaxed, and when it is desirable effectually to protect the sides of the vagina, as in the application of the potassa cum calce or potassa fusa." (p. 501.)

Our readers may already have observed that we adopt, pretty nearly to their full extent, the pathological and therapeutical views of the author; and, therefore, any formal additional recognition of them in this place is hardly called for. The point on which we feel greatest difficulty in going cordially along with Dr. Bennet, is his limited appreciation of general medical treatment. He certainly recommends it as an adjuvant to local means; but he does not concede to it that amount of efficacy, which from our own experience, as well as from the testimony of the best authorities, it seems fairly to merit. We think, with Dr. Oldham, that in hypertrophy and induration of the cervix, much local treatment may be dispensed with, if the bichloride of mercury be skilfully administered internally. Dr. Bennet seems to consider, that to employ surgical, or, to use his expression, *local treatment*, as an *adjuvant* to *medical treatment*, when there is absolute uterine disease of a chronic nature existing, would be like putting the cart before the horse; but, that, on the other hand, it is reasonable to admit the value of medicine as an *aid to local treatment*. Our difference, therefore, though of importance in its bearing upon the management of particular cases, is not one of principle, but of degree.

We have already stated, at p. 1029 of the volume for 1849, that Dr. Bennet has furnished "an amount of solid information regarding uterine diseases not to be met with in any other treatise"; and we would now add, that to Dr. Bennet is fairly due the great improvement, we might say the revolution, which has taken place in the management of these affections, since his views first began to be diffused by means of his original contributions to the *Lancet*, and subsequently by their republication, in the first edition of the work now under review. While we declare our belief that Dr. Bennet rides his hobby a little too hard, we willingly admit, that enthusiasm and earnestness are almost essentially requisite (even beyond all common limits), when old prejudices have to be unsparingly swept away, from ruling over a great domain of medical practice. It is no small merit, to have been chiefly instrumental in rescuing a very numerous class of patients from the inefficacious, trifling, and empirical routine till recently in the ascendant: and to be niggardly in recognizing the merits of such an author, because he has pushed some of his ideas too far, would be ungenerous and unjustifiable.

Sanitary Economics; or, Our Medical Charities as they are, and as they ought to be. By Alexander P. Stewart, M.D., Physician to the St. Pancras Royal General Dispensary. Pp. 30. London: 1849.

Dr. Stewart has not converted us to his opinions, simply because we held the same years before we perused his pamphlet. He has, however, established our previous convictions, and greatly illuminated some parts of the subject. We wish the public and the profession were more alive to the momentous facts, that some of our most ostentatious Medical Charities are unblushingly, and on a large scale, made use of by the rich for their servants; and that the majority of the hospitals and dispensaries of England are actually operating as the forcing beds of pauperism, the very schools in which are taught to all comers the first lessons of improvidence. Chalmers long ago admirably embodied the truth which Dr. Stewart so well illustrates, and which Mr. H. L. Smith, of Southam, twenty years ago, successfully applied. It was thus that Chalmers wrote in 1814: "The remedy against the extension of pauperism does not lie in the liberalities of the rich—it lies in the hearts and habits of the poor. Plant in their bosoms a principle of independence—give a high tone of delicacy to their characters, and teach them to recoil from pauperism as a degradation. Could we reform the improvident habits of the people, and pour the healthful infusion of Scripture principles into their hearts, it would reduce the existing poverty of the land to a very humble fraction of its present extent. We make bold to say, that, in ordinary times, there is not one-tenth of the pauperism of England due to unavoidable misfortune."[1]

It is not our intention on the present occasion to enter upon the general subject of a reform in our Medical Charities, as we intend, from time to time, to introduce to the notice of our readers the reports of different dispensaries, hospitals, and clubs; and also, because in our next number we propose to give the substance of a recent lecture, by Mr. H. L. Smith, on Provident Dispensaries. In the meantime, we content ourselves by selecting a few passages from Dr. Stewart's important and admirably written pamphlet, in the hope that it may aid him in securing the co-operation of the profession in introducing a better order of things.

Gratuitous Advice and Medicine, draw to the Dispensary many who are mere Candidates for Public or Private Charity. "I have been led to this conclusion from having been often asked, in a way that plainly showed it was the main errand, for a certificate of ill health, either couched in general terms or addressed to some benevolent individual; at other times, for a few lines to the Board of Guardians; but oftener far, for a recommendation to the District Visiting Society. The mere fact of being under treatment at a dispensary may prompt many charitable persons to extend a helping hand to the patient,—and to this there could, in many instances, be no reasonable objection, if the applicant were a patient in the sense of being *a sufferer*. Where, again, the dispensary letters and charitable relief are distributed by the same hands, the application for the wished-for dole is a natural, as the granting of it is a frequent, result of the physician's prescription, which is looked upon as a certificate of genuine sickness. And if it is not so, asks some smart objector, must not the physician be held as *particeps criminis*,—the wilful abettor of fraudulent beggary? Nay, not so fast, sweet master. The physician, unpaid as he is for all his exertions, knows too well the consequence of turning adrift, with the assurance that they have nothing the matter with them, applicants for

[1] Hanna (Rev. William, LL.D.), Life and Writings of Thomas Chalmers, D.D., LL.D. Vol. i, p. 384. Edinburgh: 1849. We are not acquainted with any biography in the English language more instructive or more interesting.

advice, armed with that formidable instrument—a Governor's recommendation. He knows very well that such a course exposes him to the risk of a correspondence with the incensed Governor, of which he must keep duplicates, in case of his being summoned to answer for his audacity before the Committee. I frankly confess, that if I had discharged all whom, during my incumbency in the St. Pancras Royal General Dispensary, I have suspected of having no disease specified in the nosology, or of being themselves the authors of their ailments, I should have involved myself in an endless succession of broils. And who does not know, that the time and thought required for sifting and exposing most cases of feigned disease, would amply suffice for the investigation of half a dozen cases of serious illness? So much for this feature of dispensary practice."

Gratuitous Advice and Medicine make Paupers of many :—for if once a family accept one form of alms, they soon become greedy of eleemosynary aid in every form in which they can grasp it. "Hitherto, in England, benevolence seems rather to have aimed at paralyzing, than at stimulating, the self-supporting energies of the working classes; but a healthy reaction is now taking place, and is assigning a remarkable and cheering prominence to all sorts of *provident institutions;* and that is a very false philanthropy, which would deter us, by the ready and popular cry of hard-heartedness, from seeking to develop these energies to the uttermost. A procedure this, which is in the highest degree compatible with a liberal and generous treatment of the deserving poor. But what shall we say of the second class? Why, that *many* of them—I can depone to the fact—have long withstood the temptation held out to them by the dispensary,—have availed themselves of it only after a painful struggle with their own inclinations, and would *never* have done so had there been any *via media* between private attendance and the receipt of alms. Often have I been spontaneously told, 'Indeed, sir, we have always paid for attendance till now, and we didn't like to send to the dispensary; but we've been forced to it, for we couldn't pay any longer.' But this is the first step of the '*facilis descensus;*' they have no scruple in returning to the dispensary, though a recurrence of sickness should find them improved in circumstances. This, however, it must be confessed, is seldom the case; for, once fairly reconciled to the idea of receiving public charity, the benevolent society or the parish is thenceforward too often looked upon as superseding the necessity of economy and forethought, and as the appropriate refuge in any season of temporary pressure. As regards this and the third class of cases, I am persuaded, from instances that have come under my own observation, that thoughtless benevolence does much harm by actually pressing dispensary letters on the acceptance of those who were paying for attendance. The result of one such victory may be most disastrous. The neighbours all around begin to say, 'Why, if so-and-so goes to the dispensary, why should not we, who are no better, or, it may be, much worse off?' And so the infection spreads, till one such case may have pauperized a whole neighbourhood. Here is a case in point :—Coming down stairs one day from visiting a lady, who occupied the second floor of a very nice lodging-house in a highly-respectable quarter, I was thus accosted by the landlady :—'Well, Sir, if Mrs. —— is a fit patient for the dispensary, I shall know where to go when I'm ill next.' The lodger was, I believe, better off than the landlady; and what could I say?"

How Governors derive Pecuniary Assistance from Dispensaries. "I have always considered the system of allowing Governors to have their servants supplied with advice and medicines utterly indefensible. Yet such is far from being the opinion of all. Rumour, for instance, asserts very positively, that some years ago a Noble Marquis, who has repeatedly held a high place in the councils of the realm, offered a donation of £50 to a well-

known dispensary, on condition of his being allowed, during the term of his natural life, to send the servants of his princely establishment for advice and medicine whenever any of them should require it. The reader naturally wishes to know what reception the Committee is said to have given to this tempting bargain ; but let him first bestow a few moments' thought on the important question it opens up. I confess that early associations, certain primitive ideas instilled into my mind from very childhood, and the customs of those among whom I was reared, all combined to impress me with very old-fashioned views of the sacredness of the relation between master and servant. It was my delight to hear of servants growing up almost from childhood in the bosom of families, of which they reckoned themselves, and were reckoned, members, and in which they remained till their heads were 'silvered over with the frost of age.' And if the great destroyer suddenly broke up, or by slow decay extinguished, the households of which they were component parts, it was pleasant to see them taken into the employ of other members of the same family, and cared for when bowed down with the weight of years, by those around whom their life-long associations were entwined. Now I do not assert that either the feeling or the practice to which I allude is wholly extinct—for I know that in many quarters they both exist, and are in full operation. But no one, I apprehend, will deny that they are yearly becoming more and more rare, and that in very many quarters the relation between master and servant has become one of mutual convenience. *Each seeks to serve himself of the other, for his own, and not for the other's benefit.* The very idea of an established relation is lost sight of, where, on either side, a freak, a whim, an explosion of temper, or fancied self-interest, may terminate it at any moment. The servant is in a twofold sense a *tenant-at-will*—at his employer's will, and at his own ; and as his place is thus doubly insecure, he seeks (like all of that class of tenants) to obtain from it the largest possible return for the smallest possible outlay. The only relation that can be said to subsist between those heads of families, who think it beneath them to occupy their thoughts about what is going on below stairs, and their servants, is that of so much menial labour exacted, and grudgingly given, for a stipulated equivalent, which is relinquished so soon as a larger one can be had for still lighter service. In such a state of things, of course, *moral obligation* ceases to be thought of, and *legal obligation* becomes, on either side, the standard of right and wrong. Now, the verdict found upon the alleged offer of the Noble Marquis will vary greatly, according as the jury is composed of those who take the moral, or of those who take the legal view of the question. If of the former, they will denounce it as *mean* ; if of the latter, they will praise it as *generous*. What said the Committee of the dispensary ? They are said to have rejected the proposal, on the ground that the institution, of which they were the guardians, was not intended for the relief of noblemen's servants.

" I might adduce various considerations in vindication of this decision. I might show that the moral obligation lying on masters, to promote the physical, as well as the moral health of their immediate dependants, is one of which, however they may neglect it, they cannot shake themselves free ; and that, sanctioned alike by the principles, the precepts, and the recorded examples of Holy Writ, it is still largely recognized in all professedly Christian communities. Or I might show, that the servants in large establishments should either have such wages as will enable them to pay for advice themselves, or be provided with such advice by their employers, who, if they excuse themselves from adopting either alternative, by referring to the size of their establishments, ought rather to abate somewhat of their pomp and circumstance, than to set at nought the maxim, 'Owe no man anything.' Or, yet, again, I might point out how cheap is that generosity towards a sick servant, which would supply him with attendance and medicines at the nominal rate of two shillings a-month ; and how peculiar that

sympathy for the sick poor, which cannot find relief to its yearnings, without exacting the aforesaid equivalent!

"But I greatly prefer exhibiting by contrast the nature of the alleged proposal, on which I dwell thus at length, because it brings out in a clear and striking light several of the worst features of the present system of dispensary management. Many, we suspect, would be disposed to think the offer of 50*l*., even with the condition attached to it, an extremely liberal one, and would, in return for a donation half as large, reckon themselves fairly entitled to summon to their servants' sick room, at any hour of the day or night, the unpaid physician or surgeon of the dispensary, which they are said, by a figure of speech, to "patronize". Has it, we ask, ever occurred to those, who, out of yearly incomes of thousands sterling, bestow one annual guinea on a dispensary, to estimate the contributions of the medical officers, whom they look upon as their servants' servants? To begin with the annual guinea, let them bear in mind that the medical officer is generally a Governor like themselves; that he has exerted himself, more or less successfully, to obtain additional subscribers among his friends; and, that, besides the carriage-hires entailed upon him by his dispensary duties, but for which he is allowed no equivalent), and the shillings and half-crowns extorted by pity for his starving patients from his already over-taxed pocket—he makes in time and toil a WEEKLY contribution of certainly not less than a couple of guineas to the public health. In other words, each medical officer contributes *annually* to the funds of his dispensary a sum at least twice as large as the proffered *donation*—which many will call munificent—of the Noble Marquis. But this estimate does not include those items of which money value is no adequate exponent,—the frequent exhaustion of the body, depression of spirits, and utter unfitness for intellectual exertion after the day's work is done; the weeks, and sometimes months, of broken health and dyspeptic languor; the continual risk of life in his attempts to combat the great enemy in his dreariest fastnesses and most malignant aspects; the sudden summons which, in these haunts of death, he may receive at any moment, from a career of promise scarce begun, to the bar of the Eternal Judge. Surely, if any man can be said to have made good his title to a standing supply of medicines for his household, it is the dispensary medical officer. Yet *he* would scorn to avail himself, for such a purpose, of the public charity to which he contributes so largely. If, then, his wealthy and titled neighbours, who have all their lives been dandled in the lap of luxury, or those on whose honest exertions a kind and liberal Providence has smiled so sweetly, that in present affluence they have almost forgotten former want and toil, do, from motives of economy, stoop to, and resolutely insist on that, in consenting to which he would feel himself to have lost caste, why should not they be reckoned the pariahs of the philanthropic commonwealth?" (pp. 15-17.)

"Many, I doubt not, would be startled, and blush crimson at seeing their deeds of charity translated into such plain and unseemly English as this. And I purposely 'use plainness of speech', that I may stir up thoughtful and earnest minds to inquire whether we are not unconsciously accustoming ourselves to confound domestic duty with public charity, and deluding ourselves with the idea that we are satisfying the claims of both, while our so-called alms-deeds only serve to conceal from ourselves the havoc that the canker *selfishness* is silently working on our kindlier and more Christ-like sympathies. I especially desire to concentrate attention on the practice of systematically holding out a *bribe* (for such it is, disguise it by what other name we may), to draw forth the subscriptions of the wealthy—a practice, the very existence of which proves, that love for the sick poor is not of itself strong enough to secure an adequate support to our medical charities. It is one of those shifts, now-a-days so common, for beguiling or enticing, or, may we not say, cheating people into the commission of charitable acts, from which, if presented in their naked unattractiveness, they would be apt instinctively to recoil. It

must take its place in the weary round of dinners, balls, and fancy-fairs, *mis*called charitable, and so well-fitted, if the task were not so hopeless, to bring down the high looks of our boastful but hollow-hearted philanthropy. If this charge be deemed offensive, there is a simple, and, if our love for the poor be so disinterested, a natural way of escaping from it. Let the privilege be put an end to for all future subscribers; and if any of the *life*-governors say with Shylock,—

> 'I'll have my bond; I will not hear thee speak;
> I'll have my bond; and therefore speak no more,'—

the most unfriendly wish I could allow myself to breathe for him would be, that he may exact the uttermost farthing. By such a measure some annual guineas might be lost, but it is more than likely, that the adoption of a bold and comprehensive plan of medical relief for the labouring classes would induce many others to double or treble their subscriptions, instead of withdrawing them."[1] (pp. 18-20.)

The eager canvassing for the unsalaried appointments to Dispensaries and Infirmaries, the pretext which this gives for newspaper advertisements from medical aspirants, the profusion of medical charities in the neighbourhoods where they are least wanted, are subjects which provoke inquiry; and they shall have it. But, for the reasons already explained, we in the mean time refrain from entering upon their consideration.

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1. Charter and Bye-Laws of the Royal Medical and Chirurgical Society of London. pp. 32. London: 1846.
2. Catalogue of the Library of the Royal Medical and Chirurgical Society of London. Supplement for 1844-49. pp. 47. London: 1849.

In our last number, we had occasion to complain of the badness of the machinery of the Royal Medical and Chirurgical Society, as exposed by the dispiriting aspect of the present session, the attenuated volume of Transactions last issued, and the inexplicable want of discrimination or justice displayed in the selection and rejection of papers. We are glad to learn, that our remarks have not passed unheeded; and that it is admitted on all hands, that some modifications of present usages are urgently demanded. Though we are not hostile to the project, at present so popular, of amalgamating the London Medical, the Westminster, and other Societies, and establishing the new institute in a commodious and elegant mansion at the West End, with a library, a reading, and a refreshment room, we strongly feel that the first care of the medical profession in London ought to be, to reanimate the Royal Medical and Chirurgical Society. It contains, though little visible at present, all the elements of greatness and prosperity; its Fellows are the élite of the profession; it has, besides, a noble library and a respectable treasury, which the United Societies could not, under the most favourable circumstances, cope with for many years to come. We would therefore advise a general rallying round the standard of reform in the Royal Medical and Chirurgical Society, and would strongly deprecate the threatened secession of members. No violent changes are required; it is only necessary to abolish a bye-law of doubtful legality, and conform to the charter.

Nearly the whole power of the Fellows of the Royal Medical and Chirurgical Society is vested in the Council: and this body, through the disastrous working of the Bye-law to which we have referred, has become independent, and irresponsible, devoid of sympathy with those by whom it is nominally,

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[1] "The above remarks are not applicable, without important modifications, to the in-door department of hospitals, which must often be the refuge of servants laid aside by tedious and contagious diseases, but are largely so to the out-door department, which is, in fact, a dispensary."

but not in reality, chosen. In the Charter granted to the Society by his late Majesty William IV, we find the following provision:—"Our further will and pleasure is, that the Fellows of *the said Society* shall and may, on the first day of March, one thousand, eight hundred and thirty-five, and also shall and may, on the first day of March in every succeeding year, or as near the same as conveniently may be, assemble together at the then last or other usual place of meeting of the said Society, and proceed, by method of ballot, to *nominate and appoint a President of the said Society, and such Officers and other Members of the Council, as may, with the President, form the number of twenty-one, of whom we have willed that the Council shall consist.*" It is very clear, from this passage, that the election of the Council ought to be made by an unfettered general assembly of the Fellows; and that the annual meeting in March should be something more than a farce—something better than a cold and compulsory recognition of what is called the "House List". We use the term "*compulsory*", advisedly, because it has been found experimentally, that positively obnoxious names on the house-list are of necessity chosen, simply from there being no organization among the disapproving majority. The mischievous Bye-law to which we refer is as follows: "*Balloting lists, recommended by the Council, and having blank spaces for such alterations as any Fellow may wish to make in them, shall be laid on the Society's table, for the use of the Fellows, and sent to each resident Fellow, with the circular summons.*" The needed reform, therefore, is simply to repeal this Bye-law, and to introduce a practice consistent with the charter, and in accordance with what is due to the feelings of every individual gentleman who has been duly admitted as a Fellow. Previous to the day of election, let the President call upon any of the assembled Fellows to nominate suitable individuals to fill the offices: and then let the names of all Fellows so nominated be inscribed on the balloting lists. Should the number of names proposed be exactly equal to the offices to be filled up, the ballot would be little more than a formal operation; but if, on the other hand, as would generally be the case, the candidates should exceed the number of vacancies, then the ballot would elicit the true feeling of the Society, as those least acceptable to the majority would be struck out. Were the office-bearers to be thus chosen by the whole body of the Society, an immense stimulus would be given to individual exertions; and we would never again see dormant Fellows promoted to the chief offices. It is not safe, it is not reasonable, that the Council,—the supreme executive,—who, by the constitution of the Society, have almost unlimited power, should not be the free choice of the Fellows.

*(To be continued.)*

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THE DISEASES OF CHILDREN. By FLEETWOOD CHURCHILL, M.D., M.R.I.A. pp. 656. Dublin: 1850.

DR. F. CHURCHILL'S name is so favourably known to the profession, that we had high anticipations as to the excellence of the work now before us: but though it be undoubtedly possessed of much merit, we find that it falls short of what we had expected. The performance is most unequal: some subjects are amply and ably discussed, others are treated very superficially, and not a few, of great importance, are not even referred to. Dr. Churchill does not seem to be fully acquainted with the recent English literature of the Diseases of Children; though we are glad to observe that this remark does not apply to his knowledge of the LONDON JOURNAL OF MEDICINE, which, however, unfortunately, when his work was printed, only embraced the very limited period of less than one year.

The work consists of two parts: the First being devoted to the *Management of Infants and Children:* and the Second to the *Diseases of Infants and Children.*

The first part we have perused with much pleasure. It is sound, clear,

and practical. The second part consists of seven sections, viz.: 1. Diseases of the Nervous System. 2. Of the Respiratory System. 3. Of the Heart. 4. Of the Digestive System. 5. Of the Skin. 6. Eruptive Fevers; and, 7. Infantile Remittent Fever. The first four sections each contain a chapter on Intra-uterine Diseases, but they are very far from being complete; and in the fifth section no notice is taken of congenital affections of the skin. Intra-uterine diseases of the kidney—a most interesting and important subject—is not noticed; and, except under scarlet fever, there is no notice of renal disease in any part of the work. The all-important subject of encephalitis is discussed in ten pages; whereas pertussis occupies three times that space. The paralysis of dentition is not mentioned. The same may be said of syphilis, phthisis, tabes mesenterica, all the forms of scrofula, influenza, various fevers, the diseases of the urinary and genital organs, malignant diseases, atelectasis pulmonum, etc. It does seem extraordinary to neglect such subjects in a systematic Treatise on the Diseases of Children.

Notwithstanding, the deficiencies which we have pointed out (and which must be remedied in a subsequent edition), we can truly say, that this volume will form a most valuable addition to the library of the medical practitioner.

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London and Provincial Medical Directory for 1850. pp. 576. London: 1850.

We regard the *Medical Directory*, as a work, of great value to the profession; and we therefore hail with satisfaction the strong desire evidently manifested by the proprietors to insure greater accuracy for the future. Though, upon the whole, the errors of omission and of commission are fewer in number than in the *Directory* for 1849, we have yet to complain of such errors as could not have occurred, had the proof-sheets been looked at by a member of the medical profession, ordinarily well informed as to the occurrences of the last twelve months. It reveals incompetency on the part of the editor, to describe Dr. Day, Chandos Professor of Medicine at St. Andrews, as residing at 27 Upper Seymour Street, Portman Square, and to insert Dr. Peacock as holding the office of Physician to the Royal Free Hospital,—he having resigned that post on his appointment as Assistant Physician to St. Thomas's Hospital.

The number of double entries is hardly excusable. We mention a few which we have observed in the course of a very cursory examination. Dr. Edward Ballard is entered in the *London Directory* as residing at 64, Gower Street, and in the *Provincial Directory*, at East Retford: the latter being correct. Mr. Joseph Henry Green, of Hadley, President of the Royal College of Surgeons, is to be found in both departments of the *Directory*. Mr. J. T. R. Burroughs, of Lee, Kent, is similarly honoured: as is also Mr. F. C. Dodsworth, of Turnham Green. Dr. Jephson Potter, of Manchester, is styled in one page "Potter, Jephson", and in another, "Jephson, Potter."

Some of the suburbs of London are also given in the Provincial list, most frequently with separate lists of practitioners. We refer to Tottenham, Turnham Green, Streatham, Stratford, and Lee. In Putney, Dr. Ridge and Mr. Whiteman have been selected for location in "High Street", in the general Street list, while the other gentlemen are entered under "Putney".

There are a few more miscellaneous errors, the occurrence of which should certainly have been avoided. Mr. Rymer Jones is styled "Examiner in Physiology at the University of London", though he resigned that office two or three years ago. Dr. Carpenter is deprived of his title as Professor of Medical Jurisprudence in University College. Mr. J. F. South is still described as "Professor of Surgery to the Royal College of Surgeons." Dr. Turnbull, of Liverpool, in the list of the provincial hospitals and dispensaries, is not stated to be one of the physicians to the Liverpool Infirmary: and Dr.

Freckleton is retained, in the same place, as physician to that Institution, although he has resigned. We were rather surprised to find retained in the Street list, Mr. Samuel Cooper and Dr. Clendinning,—gentlemen whose loss has been long mourned by the profession. Some gentlemen, we observe, have "*Phys.*" appended to their names ; though the designation is not so much employed as in last year's *Directory*. If it were uniformly used to denote those who belong to the London College of Physicians, but had no claim to the academical degree, it would be reasonable ; but no such rule is observed. Dr. Tyler Smith, of 7 Bolton Street, is entitled *Phys.* in lieu of M.D., and we might multiply illustrations of the same confusion.

We may, perhaps, appear hypercritical ; but when such errors as we have noticed strike us in a slight and cursory examination of a book, of whose utility and general excellence we have a high opinion, and whose success we heartily desire, we should be failing in our duty, if we did not point them out. There is one other subject to which we beg particularly to direct attention, and that is the absurd selection which is frequently made of an author's productions. The best are often passed over in silence, and the least important paraded at full length. In this way a positive injustice has been done to many. Why were gentlemen troubled with an inquiry as to what papers they had published, "to *ensure accuracy*", if their returns were to be treated as waste-paper ?

Under competent editorial supervision, we have little doubt that the *Directory* might be made immaculate as compared to its present state. Being from this time under the controul of Mr. Churchill, we confidently expect to find the volume for 1851 free from all such unpardonable blemishes as those we have now mentioned. The work is a very useful one ; and has our hearty good wishes.

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Underwood's Medical Appointment Book, Midwifery Register, Diary, and Almanack: for 1850.

Every physician, surgeon, and general practitioner, ought to use Underwood's Appointment Book and Diary. It is very portable, and adapted for every department of practice. The form we recommend is that done up with pocket, pencil, and test papers. We find that this vade-mecum greatly assists us in arranging and performing the duties of the day; and that it likewise enables us, by making a few brief jottings in the diary, to write up our case-book reports with much greater confidence and precision, should the hurry or pressure of practice prevent the progress of a case from being daily extended in detail.

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Locke and Sydenham. pp. 36. Edinburgh : 1849.

This is a wholesome and racy pamphlet, giving us some admirable lessons from the olden time. It appeared originally in a brilliant cotemporary—the *North British Review*. Rumour assigns its authorship to an accomplished young physician of Edinburgh ; but to whomsoever the honour of its paternity may belong, we should be glad to see the essay reprinted, with the author's name on the title-page, and in such a form as to command a wide circulation, particularly among medical students and junior practitioners. They may imbibe from it more benefit than from all the disputatious leaders that were ever written on Medical Education and Medical Reform.

## CRITICAL DIGEST OF THE BRITISH AND FOREIGN MEDICAL JOURNALS.

# ANATOMY AND PHYSIOLOGY.

### LONGET ON THE FUNCTIONS OF THE PNEUMOGASTRIC NERVES.

M. LONGET has published, in the *Archives Générales de Médecine* for November 1849, a memoir entitled *Sur la véritable Nature des Nerfs Pneumogastriques, et les Usages de leurs Anastomoses.* His principal object appears to be, to prove that *the Pneumogastric Nerve, at its origin, is exclusively a nerve of sensation;* and to this he devotes the first part of his memoir.

The idea that the Par Vagum, at its origin, is purely sensitive, has been maintained by Scarpa, Arnold, Bischoff, Valentin, and Morgani. The contrary opinion—that it contains motor filaments—has been maintained by several physiologists of repute, viz. Van Kempen, Hein, Volkmann, Bernard, Hyrtl, and Stilling. To these we would add Bischoff, who, not long after the publication of his remarks on the accessory nerve (to which M. Longet alludes), stated that he observed movements of the velum pendulum palati, in which contractions of the levator palati muscles were very decided, on irritating either the roots of the vagus, or the nervus accessorius.[1] [Dr. John Reid, also, of whose researches on the Eighth Pair of Nerves M. Longet appears to have been ignorant, mentions that, in some of his experiments, "a distinct movement of the pharynx and arytenoid cartilages followed the pinching of the insulated par vagum, within the cranium, with the forceps."] M. Longet considers his view supported by the fact, that the roots of the Pneumogastric Nerve are implanted in the same tract as the posterior roots of the spinal nerves; by its being provided with a ganglion; and by his having failed to observe any movement in the muscles of the larynx or pharynx, after carefully isolating the roots of the par vagum, and applying electricity to them. He attaches much importance to these negative experiments; and hence concludes that the nerve is exclusively sensitive, from its origin to the ganglion which is formed on it in the foramen lacerum. The filaments proceeding from this part of the nerve, he says, impart its peculiar sensibility to each organ to which they are distributed, and give rise to various forms of reaction, dependent on the organ and on the nature of the stimulus applied.

M. Longet states that, having excised the free part of the epiglottis in dogs, he opened the trachea immediately below the larynx, and introduced some small morsels of food into the glosso-epiglottic folds, where only the lingual filaments of the superior laryngeal are found: the action of deglutition was always easily excited. He considers, however, that the glosso-pharyngeal nerves, the pharyngeal branches of the pneumogastric, and some filaments of the trifacial nerve, are also excitor nerves of deglutition. The Pneumogastric Nerve is also the excitor nerve of the *besoin de respirer;* of the action of the stomach in chymification, and in vomiting; and, by its filaments, distributed to the inner surface of the heart, of the continual reflex movements of that organ.

But a grave error would be committed, if we supposed that the reflex movements of deglutition, chymification, respiration, and circulation, were all suspended on section of the par vagum. 1. Besides the lingual, pharyngeal, and œsophageal branches of the Pneumogastrics, the glosso-pharyngeal, and some divisions of the trifacial nerves, also act as excitor nerves of deglutition. 2. The presence of other nerves, besides the Pneumogastric, as

[1] Bericht über die Fortschritte der Physiologie im Jahre 1842; in *Müller's Archiv.* Jahrgang 1843, s. 155-6.

excitors of respiration, is shown by the effect produced in syncope, by dashing cold water on the face, or applying strong and penetrating odours to the nostrils. 3. The movements of the heart, though altered in rhythm and energy by section of the Pneumogastrics, are not thereby destroyed. 4. The movements of the stomach are not entirely suspended after section of the Pneumogastric Nerves in the neck.

*Trunk of the Pneumogastric, considered as a Moto-sensitive Nerve.* It is difficult to imagine how so small a number of fibres as the par vagum has at its origin, can impart sensation to so large an extent of mucous surface as they seem to do. The motor power also which it imparts, is not less astonishing at first; for if the whole of the spinal accessory nerve were added (which is contrary to what is known), this would still be insufficient, so innumerable are the ramifications of the mixed trunk of the par vagum.

Of the sources from which it derives its motor power—voluntary over some organs, involuntary over most, some are *direct*, and proceed,—1. From the internal branch of the spinal accessory: 2. From the facial nerve: 3. From the vertical portion of the hypoglossal: 4. From the anterior branches of the first and second cervical nerves. The others, which proceed from the anterior branches of the cervical and the first five or six dorsal nerves, are called *indirect*, because they pass through the ganglia of the sympathetic before arriving at their destination. The *direct* filaments all contribute to form the trunk of the nerve; while the *indirect* only communicate with its branches. No physiologist seems to have given to these anastomoses all the importance they deserve. To explain this multiplicity of sources, from which the Pneumogastric nerve derives its motor power, we must bear in mind the high physiological mission which is confided to the mixed trunk of the nerve. It presides, in fact, over the chief organs, whose action is indispensable to life. In order, then, that its functional integrity may be better preserved, and that any sudden interruption of its influence may be less easy, it derives its motor power from a large extent of the spinal chord. If it derived its power, like other nerves, from a limited portion of the central mass, a lesion at this point would instantly suspend its functions.

M. Longet next enters on the consideration of the question,—Is it possible to determine from what particular source the motor fibres, distributed to each organ, are derived? This can, he thinks, be answered in the affirmative.

1. The influence which the Pneumogastric nerve exerts over the movements of the lungs, heart, œsophagus, and stomach, is due to the filaments which it receives from the anterior branches of the cervical and upper dorsal nerves, *which pass through the sympathetic ganglia.* Irritation of the par vagum at its origin, or of the spinal accessory, hypoglossal, or facial, which are connected with it, does not produce any movement in these organs. Those parts which are supplied through the medium of the sympathetic, have this peculiarity, that the contractions produced by irritation of the nerves are not immediate, and continue, even increasing in intensity, after the stimulant has been removed. It would be an error to conclude that, because the phenomena of respiration, circulation and digestion, continue after the spinal accessory nerve has been divided, the pneumogastric is a mixed nerve at its origin: for the internal branch of the spinal accessory is only one of the motor nerves connected with the par vagum, and, moreover, presides over the functions of other organs.

2. The *direct* motor filaments, supplied to the Pneumogastric, are derived from the spinal accessory, the facial, the hypoglossal, and the anterior branches of the first and second cervical nerves.

The internal branch of the spinal accessory, which arises from the bulb, passes into the foramen lacerum between the external branch and the Pneumogastric. It gives some filaments to the latter nerve and then divides; one part forms a large portion of the pharyngeal nerve, and the other is united

with the Pneumogastric, just above the origin of the superior laryngeal. Its connection with the nerve cannot be demonstrated anatomically; but the experiments of Bischoff and Longet tend to show that the voice is destroyed on division of the internal branch of the spinal accessory.

Has the internal branch of the spinal accessory any influence over the respiratory movements of the glottis? It indeed transmits to the laryngeal muscles the motor power, on which depend the tension and approximation of the vocal chords; and it must be admitted, that the whole laryngeal muscular apparatus is called into action in the production of sounds. But in normal respiration, we only see a permanent separation of the glottis or of the nostrils; when respiration is impeded, these orifices at first become dilated, but soon return to their original dimensions, without having any necessity for the action of constrictor muscles. For the nasal orifice, this intervention is indispensable, as in the act of smelling; for the orifice of the glottis, it only acts in producing sonorous expiration, as in coughing and sneezing—that is to say, when the larynx acts both as an organ of voice and of respiration. The narrowing of the glottis, which occurs in certain determinate acts, is independent of the constrictor muscles of the larynx. It hence follows, that all the muscles of the larynx, with the exception of the arico-arytenoidei postici, are engaged in the production of the voice; and that, if section of the spinal accessory nerves produce aphonia, it is because they supply these muscles.

The crico-arytenoidei postici, which dilate the glottis in respiration, are under the influence of a greater number of nerves. Before giving off the recurrent nerves, which supply these muscles, the Pneumogastrics have extended to such a distance as to be able to receive motor fibres from the spinal nerves. These accessory fibres of the Pneumogastric supply also the constrictor muscles of the pharynx, which are in no way affected by irritation or injury of the spinal accessory nerve within the skull. In an animal, however, deprived of its spinal accessory nerves, there is some disorder of deglutition; and M. Bernard has observed some difficulty, which he refers to the non-closure of the larynx. When one wishes to compel the animal to eat quickly, when it is frightened during its meal, or when it is pinched, there is a kind of hoarse cough produced by the introduction of morsels of the food into the air passages. But when it is let alone, deglutition goes on without accident, but slowly; it sometimes recovers, however, its normal rapidity in a few days. The introduction of the food into the air passages is explained by the slowness of its progress through the pharynx. As to the latter phenomenon, it depends on a diminution of the power of the pharyngeal muscles; and its restoration tends to show, that these muscles derive their motor power from other nerves than the spinal accessory. The non-closure of the larynx cannot be adduced as a reason for the entrance of food into the trachea; for the closure of the glottis is effected by the action of the lower constrictor muscles of the pharynx during deglutition. From experiments performed by M. Longet, it appears that deglutition proceeds normally, even if the trachea be opened, and the glottis prevented from being closed. M. Louis, also, has observed deglutition performed with perfect regularity in phthisical patients, whose glottides had been destroyed by ulceration.

The principal causes which prevent the introduction of food into the air-passages are, the ascent of the larynx forward, with the movement of the tongue backward, and the *momentary* arrest of respiration which precedes these movements. M. Longet states that the arrest of the respiration cannot be attributed to the closure of the air passages at the level of the larynx; for the same phenomenon has taken place in dogs, whose trachea has been cut across; and in rabbits, whose spinal accessory nerves have been divided, and in whom the aperture of the glottis has been kept open. In deglutition, then, the pharynx ceases its respiratory function, to appropriate itself exclusively to deglutition. The acts of respiration and deglutition thus alternate

and never come into opposition. M. Longet concludes, that the temporary arrest of respiration is not dependent on the internal branches of the spinal accessory nerves ; and that the slight impediment to deglutition which follows section of these nerves, is not to be attributed to the persistence of respiration. That the pharynx should continue to act, after division of the spinal accessory nerves, is not surprising, when we reflect on the number of nerves which it receives from other sources. The filaments from the facial, which anastomose with the glosso-pharyngeal, are distributed to the stylo-pharyngei and palato-pharyngei muscles, as well as to the superior and middle constrictors ; the latter also receive nerves from the three or four upper cervical, which have passed through the superior cervical ganglia of the sympathetic ; and the superior constrictor also divides some nerves from the non-ganglionic portion of the trifacial. The inferior constrictor is supplied indirectly both by the upper and lower cervical nerves ; the filaments from the latter pass through the inferior cervical ganglia, and enter largely into the formation of those portions of the recurrent nerve which end in the inferior constrictor.

The motor power of the pharynx is thus dependent on the inferior maxillary, the facial, spinal accessory, and hypoglossal nerves, and on direct or indirect motor fibres from the cervical nerves ; while its property of sensation is presided over by the ganglionic portions of the par vagum, glosso-pharyngeal, trifacial, and sensory fibres from the anterior branches of the cervical nerves. The importance and diversity of the uses of this organ afford a just explanation of the numerous sources from which it derives its nerves.

The pharynx, by varying in dimensions, produces differences in the *timbre* of the voice ; but this function is of course useless, when the movements of the larynx in phonation have been arrested by section of the internal branches of the spinal accessory nerves.

M. Longet has always seen contractions produced in the upper part of the œsophagus by applying electricity to the internal branch of the spinal accessory. The muscular fibres, at this part, are mostly striated. The influence of the spinal accessory nerve seems to be exerted on the œsophagus during phonation ; for M. Longet has several times seen very obvious contractions of the upper part of the tube, at the same time that the animal was uttering violent cries.

It will perhaps be interesting to inquire, how far the ganglionic portion of the pneumogastric, and the numerous motor-filaments which join it, can represent the two elements of a rachidian nerve.

The mixed trunk of the pneumogastric consists, as before seen, of sensory and direct (voluntary or semi-voluntary), and indirect or reflex motor fibres. But if all these motor nerves were so grouped as to arise from a limited part of the cerebro-spinal axis, we would naturally be led to consider the pneumogastric as composed of elements analogous to the motor and sensory roots of spinal nerves. But the motor fibres of the pneumogastric arise from a large extent of the cerebro-spinal axis ; hence the impossibility of their uniting with the sensory portion of the nerve at the level of the jugular ganglion, as the motor and sensory portions of the spinal nerves unite at the level of the intervertebral ganglion. There is also another essential difference, in the presence of the indirect motor fibres, which do not exist in a mixed spinal nerve.

It would be easy to shew, that the muscular division of the inferior maxillary nerve is not the only motor root of the trifacial ; but that the oculo-motor, the facial, and the hypoglossal, form anastomoses with it, below the Gasserian ganglion, and thus represent complementary motor roots. We could certainly imagine, in place of all these nerves, a single large motor root: but then the interruption of the motor function, by injury, would be

much more easy. However this may be, we should be greatly mistaken in imagining that a nerve, reputed motor in relation to another which is sensory, must necessarily accompany all the divisions of the latter. No one denies, that the masticatory nerve is the motor portion of the trifacial, nor that the anterior root of the second cervical nerve is motor: yet the posterior root, which gives sensation to the skin of the back of the head, and the trifacial, which performs the same function anteriorly, are far from being accompanied, in their whole extent, by their corresponding motor filaments. An incomplete state of fusion between the motor and sensory fibres of the different nerves, would not authorize us to deny all analogy between them and the spinal nerves: in fact, we admit this analogy between the masticatory and the sensory portion of the inferior dental nerve, although their filaments are very easily separable, and accompany each other for only a very short distance.

The internal or anastomotic branch of the spinal accessory only represents an incomplete motor root. It is, at first, pretty distant from the pneumogastric, only giving some filaments to it; but the two nerves are soon closely united, so that, in the laryngeal nerves, it is absolutely impossible to separate the filaments of the pneumogastric from those of the spinal accessory. The apparent origin of the internal branch of the spinal accessory in the vicinity of the posterior roots, cannot be alleged as a reason for its not being motor; for the whole extent of the antero-lateral portions of the cord is devoted to motion. The masticatory and sixth nerves do not apparently arise from the prolongations of the anterior columns of the cord; but they are not the less nerves of motion.

M. Longet thinks he has shewn, that it is absurd to suppose, because the movements of the lungs, heart, liver, and stomach, continue after destruction of the spinal accessory nerve (one only of the motor sources) that the par-vagum, *at its origin*, has any proper motor power. The same law which regulates the spinal nerves must be applied to the cerebral: and consequently, there can be no nerves *mixed from their origin*.

The following is M. Longet's SUMMARY:—

1. From its origin, as far as the superior jugular ganglion, the Pneumogastric is exclusively a nerve of sensation.

2. The stimulation of its proper fibres, at their extremities, has especially the effect of inducing the reflex movements of deglutition, chymification, circulation, and respiration. At the same time, it would be a serious error to suppose that, if the excitor influence of these fibres were cut off, the reflex motor actions would necessarily be abolished.

3. Below the superior jugular ganglion, the trunk of the Pneumogastric represents a mixed nerve, exercising a motor influence, voluntary on some organs, involuntary on others. The voluntary power it owes to its *direct* motor fibres; the involuntary, to the *indirect* before enumerated.

4. The sources of innervation required to maintain the function of an organ, are multiplied in proportion to its physiological importance. Thus the organic movements of the lungs, heart, and stomach, are influenced by motor fibres coming from numerous points of the nervous system. It is the same with the movements of deglutition, and with the respiratory dilatation of the glottis.

5. The anastomotic branch of the spinal accessory, which, to the exclusion of every other nerve, presides over the vocal movements of the larynx, only represents a *partial motor root* of the Pneumogastric.

6. It is neither correct nor rational to conclude that, because, in the absence of this anastomotic branch, the phenomena of respiration, circulation, and digestion, continue in animals, the Pneumogastric Nerve must be mixed at its origin. The internal branch of the spinal accessory is only one of the sources through which the trunk of the Pneumogastric receives motor filaments from the cerebro-spinal centre.

John Reid's Researches. Any contribution to physiology by M. Longet, is deserving of careful attention: and it is from our high opinion of his scientific merits, that we have devoted so much of our space to his memoir on the Functions of the Pneumogastric Nerves. But we regret to have to notice a serious fault, which is common to not a few of his countrymen, and which he commits in no moderate degree. We allude to disregard or ignorance of what has been done by British physiologists. In a careful perusal of his memoir, we have not once met with any allusion to the elaborate and valuable Essays of Dr. John Reid, on the Eighth Pair of Nerves: and we have been more struck with this omission, both because M. Longet has noticed the opinions of German physiologists, and because there are several points in his memoir, whereon the opinions of Dr. Reid might have been adduced, as either confirmatory or opposing. We are utterly at a loss to imagine a valid excuse for M. Longet. We have some idea, that he cannot be ignorant of at least the existence of the first memoir of Dr. Reid, published in 1838. Even supposing him to be ignorant of the English language, he might surely have become acquainted with what Dr. Reid had done, through the medium of some friend who understood English; and he must know, that the reputation of Dr. Reid entitles his writings to a careful and respectful examination.

We regret having to make these remarks; but we have felt it our imperative duty to offer them, as an act of simple justice to British physiologists, and in particular to our lamented countryman, whose sense of honour was so nice, that he never published the results of his own researches, without giving full credit to every fellow-labourer in the same field.

## PRACTICE OF MEDICINE AND PATHOLOGY.

### COINCIDENCE OF ALBUMINURIA AND AMAUROSIS.

Dr. Landouzy has contributed an article on this subject to the *Gazette Médicale* of Oct. 20, 1849. His speculations are misty; but his paper is interesting, as establishing the fact, that impaired vision is an almost constant symptom of that form of renal toxæmia, which is indicated by an albuminous condition of the urine. We have often seen amaurosis and albuminuria coincident: but we cannot speak to this being so very frequent as Dr. Landouzy states, though we can, from what we have seen, give full credit to the accuracy of his observations. The conclusions at which he has arrived are thus stated:—

1. Enfeebled vision is a symptom almost constantly present in albuminous nephritis.
2. It is the earliest symptom of albuminous nephritis.
3. It disappears and returns simultaneously with the albuminous condition of the urine.
4. Albuminous nephritis ought to be considered as dependent upon an alteration in the ganglionic system of nerves.

### TREATMENT OF CROUP BY CALOMEL AND ALUM.

In a letter addressed to the Medical Society of Inde-et-Loire, M. Miguel, of Torres, has given some important details of the result of the method of treatment which he employs in diphtheritis.

He relates that, about twelve years ago, a little girl, seven years old, having been simultaneously seized with angina and croup, he proposed to perform the operation of tracheotomy, which was objected to by the parents. Being thus deprived of the last resource of art, he alternately administered to the child, every hour, two grains of Calomel and three grains of Alum. This treatment was continued a week, and produced no purgation nor saliva-

tion. Since this case, M. Miguel has treated twenty-six cases of croup, only three or four of which were doubtful; and only five cases have been fatal. He attributes the efficacy of his method to the mercury; but as it is liable to produce salivation and other disastrous consequences, these must be prevented; and M. Miguel thinks he has attained this object by combining alum with calomel. He thinks that when the Calomel and Alum are alternated, the latter serves to circumscribe the mercurial action, which should also be well watched, so that the administration of Calomel may be suspended on the least appearance of mercurial intoxication.

Remarks. The treatment of M. Miguel is founded on the property which is attributed to mercury, of diminishing the plasticity of the blood, and opposing the formation of false membranes. The important point is, that this treatment has proved successful in a certain number of cases. It should be known, also, that such treatment will not supersede the necessity of emetics and of energetic cauterization, when the disease has commenced in the pharynx. In such cases, mercury alone is useless: it may be prescribed, but the local treatment is that which must be chiefly depended on, to arrest the progress of the disease. Of this we saw a remarkable instance, a short time ago, in the practice of M. Trousseau.

In this case, the diphtheritis had commenced in the tonsils, and had extended towards the larynx. On the first day of its appearance, an emetic of sulphate of copper was administered, and the back of the throat was well cauterized with fuming hydrochloric acid. This cauterization was repeated once on the next day, twice on the day following, and once on the subsequent day. At the same time, the patient took, in small quantities every quarter or half hour, a mixture of ten grammes of alum with the same quantity of honey. This is preferable to alum in powder, because the medicine comes into permanent contact with the throat and the arytæno-epiglottic cartilages.

In prescribing Alum, M. Trousseau used it as an auxiliary to cauterization, not as a corrective to mercury, which he did not give during the whole progress of the case. From the third day, there was a steady improvement; and, on the sixth, the cough had lost its croupy character. The voice continued rather weak, which showed the existence of false membranes on some points. Cauterization was continued once a day, for two days, together with the Alum and honey: and the child recovered. This method of treatment is considered, by M. Trousseau, to be the most certain which can be employed in cases of croup. [*Journal de Médecine et de Chirurgie Pratiques,* 1849. p. 533.]

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### THE VARIOUS FORMS OF DIARRHŒA IN CHILDREN; AND ESPECIALLY CHOLERIFORM DIARRHŒA, OR INFANTILE CHOLERA.

Besides lientery, there are several forms of Diarrhœa which affect infants, and with the nature of which it is important to become acquainted. *Bilious diarrhœa* is characterized by bilious mossy stools of the colour of oil. There is also a modified form of bilious diarrhœa, in which the stools resemble chopped vegetables. There is the appearance of the débris of spinage in the stools, which are also spotted with a liquid of the colour of sulphate of copper. This modification of bilious diarrhœa is very common in new-born children, but becomes more rare as age advances. *Mucous* or *glairy diarrhœa* is characterized by the resemblance of the stools to slightly boiled white of egg. This is sometimes combined with ordinary bilious matter, and more rarely with food: sometimes also blood is present. This form is commonly attended with pain, but is fortunately more amenable to treatment than the others. It appears to be confined to the large intestines. In *pseudo-membranous diarrhœa,* the stools are imperfectly moulded, and covered with a pseudo-membranous concretion of thickened mucus or fibrin. The most severe form of all, exclusive even of epidemic conditions, is the *purely serous, watery or*

*choleriform diarrhœa*, or *infantile cholera*, which is very common in infants at the breast.

The following is an abstract of the opinions of M. Trousseau on the symptoms of each of these forms of Diarrhœa.

In *bilious diarrhœa*, the stools are yellow and abundant, and almost always accompanied with bilious vomiting, with more or less intense fever, and increase of the biliary and pancreatic secretion. It is more manageable than lientery, and yields to remedies in children as well as in adults. It is a remarkable fact, that if the diarrhœa be very abundant, the vomiting ceases; but if, on the other hand, the diarrhœa is abruptly suspended, the vomiting immediately returns. This is especially remarkable in children, and is considered by M. Trousseau to have an important bearing on the treatment. When the stools are yellow, the patient is not severely ill; but when they are copious and green, and there is fever, the prognosis is more unfavourable. The *glairy diarrhœa* commonly depends on inflammation of the large or small intestines. There are colic and fever, but rarely vomiting. The functions of digestion and assimilation still go on to some extent. The pseudo-membranous secretions are extremely rare as a result of inflammation of the large intestines, but are most commonly observed after enteritis. In *choleroid diarrhœa*, which is the most severe form, after one, two, or three days of bilious diarrhœa, the children are suddenly seized, more frequently in summer than in winter, with irrestrainable vomiting, and with serous dejections, which scarcely colour the linen cloths green. At the same time, the child utters constant cries; the eyes are hollow, the respiration impeded, the abdomen is drawn in, and the skin assumes a blue tint; and the patient dies. M. Trousseau does not hesitate to affirm, that this disease kills more than one half of the children at the breast, for it is at this age that it is principally observed. It rages independently of an epidemic of cholera, from the age of one to two years, that is to say, during the first dentition, and attacks few children who have been weaned for some time.

Treatment. In bilious diarrhœa, the first remedy to be given is ipecacuanha, in emetic doses, of fifty centigrammes to a child at the breast, a gramme to older children, and two grammes to adults. It is given three days in succession, and commonly modifies the vomiting, diarrhœa, and fever. If it fails, ten centigrammes of sulphate of copper may be given, in four doses, at intervals of ten minutes, dissolved in water. This has produced astonishing results in three children. In one child, who had been labouring under vomiting and copious diarrhœa for three days, the number of stools was reduced from ten to three by the administration of sulphate of copper. In a second, it succeeded, after the failure of bismuth and saline purgatives. In a third child, who was labouring under morbillar pneumonia, which was treated by antimonials and digitalis, diarrhœa was arrested by sulphate of copper. Rochelle salt, sulphate of magnesia, or magnesia alone, or combined with calomel, are useful in such cases. It is good practice, for instance, to give five centigrammes of calomel in the evening, and twenty-five or thirty centigrammes of magnesia the next morning.

The green form of diarrhœa is equally well combated by the preceding means, but especially by saline purgatives, as the potassio-tartrate of soda. If, however, the stools remain green at the end of two or three days, it will be found advantageous to administer twenty-five or thirty centigrammes of magnesia, with an equal quantity of sugar, at the same time applying cataplasms to the abdomen, and administering enemata. In case of failure of these means, emetics may be employed.

In glairy diarrhœa, if there be no vomiting nor flatulent distension, the treatment may consist of injections. If the pain be severe, an injection, consisting of from five to ten centigrammes of nitrate of silver in two or three hundred grammes of distilled water, should be administered. When returned, it is immediately followed by a similar one, containing a drop of laudanum.

This is repeated once a-day for three or four days, according to the amount of glairy mucus and blood in the stools. When there are flatulent distension and fever, it is well to commence the treatment with ipecacuanha, then to give Rochelle salts, and afterwards to employ lavements, and not to give opium till there be no more vomiting. The injections may contain sulphate of copper or of zinc, the quantities being double that of nitrate of silver. It is rare, says M. Trousseau, that acute colitis will not yield to this treatment: sulphate of copper is almost as active, and quite as excellent, as nitrate of silver.

Pseudo-membranous diarrhœa is rare in children, but common in adults, especially in constipated females. It yields readily to enemata of nitrate of silver, or sulphate of zinc or copper, and to belladonna given internally. Children affected with this disease appear to void boiled rice, the stools containing the fibrinous productions developed on the surface of the intestinal excoriations, which are seated either in the rectum or the colon. It is treated as in adults: calomel may also be administered in the form of enema, by triturating one or two grammes with a thick solution of gum, and injecting it every one or two days.

The most severe form is *infantile cholera*. A child, after it has been weaned, or while it is suckling, or during dentition, has diarrhœa: this is considered *salutary* by the nurses, and by medical men, who misinterpret the saying of Sydendam, that a child's bowels should be open during dentition. This is a grave error, which should be guarded against. If the diarrhœa last one or two days, it may be let alone; but if it continue beyond that time, it must be moderated and arrested. If this be not done, a child may have diarrhœa for ten days, a fortnight, or a month, without any apparent constitutional disturbance; on a sudden, it is seized with violent vomiting and abundant serous diarrhœa; the eyes became hollow, the skin blue, the tongue cold, the pulse small, and the muscles frequently soft and flaccid like rags. The vomited matters are greenish, generally with a copper colour; the diarrhœa is so completely watery in most cases, that the linens seem wetted with urine; in other cases, they seem as if dipped in a solution of copper. The child utters continual cries, and is restless and sleepless. Sometimes the diarrhœa stops, and the vomiting becomes violent; at others, the diarrhœa and vomiting are partially suspended, but not entirely arrested; the child soon loses strength, and dies. This disease lasts from twelve hours to five or six days, but the most common duration is from twenty-four to forty-eight hours.

The first remedy which presents itself is opium. In this, M. Trousseau has very little confidence. It may arrest diarrhœa, but the vomiting continues; and if the opium be given by mouth, it is more likely to aggravate the vomiting and kill the patient, than to cure him. Astringents, such as monesia, rhatany, bistort, tormentilla, cinchona in draught and in injection, etc., are of no use in this form of diarrhœa. The only treatment on which M. Trousseau depends, is based on emetics and purgatives. As an emetic, powdered ipecacuanha is the best; among purgatives, the potassio-tartrate of soda, in doses of four, five, or ten grammes, is to be preferred. But in the proper choleraic form, we must at once use mustard baths. The child must be kept in the bath until the hands of the person holding it are attacked with an unsupportable smarting; it is then wrapped in woollen cloths, and at the same time has administered to it a little syrup of ether, with mint and Seltzer water. When moderate reaction has set in, we may advantageously give ipecacuanha and Rochelle salts, to modify the condition of the alimentary canal. If at the end of forty-eight hours, there be heat, slight stupor, and other typhoid symptoms, and the diarrhœa continue at the same time, M. Trousseau gives a mixture, containing one centigramme of nitrate of silver, with thirty grammes of distilled water and twenty grammes of syrup; and injects twice or thrice daily, an enema containing from five to ten centigrammes of nitrate of silver in two hundred grammes of distilled water. The mustard bath is continued, if required. When the nervous or typhoid

symptoms are inclined to be obstinate, the infant might be plunged in a cold bath for one or two minutes, or have a slight cold affusion. These means, aided by refreshing drinks of milk or beef tea, often put an end to the disease. We see then, that in indigenous cholera, the indications are almost the same as in epidemic cholera. Nevertheless, whatever is done, the greater number of children die, even after they are thought to be recovering. Two or three drops of laudanum may arrest the vomiting and diarrhœa; but let no one trust to this. As long as the pulse is small, and there are slight fever, restlessness, cries, etc., the condition of the child is precarious, even though the vomiting and diarrhœa have been arrested. The most favourable signs are the return of a gentle heat to the skin, and the diminution of restlessness; because these symptoms indicate, even though the diarrhœa persist, that there is nothing left but ordinary enteritis. [*Journal de Médecine et de Chirurgie Pratiques.* 1849. p. 535.]

## SURGERY.

### MR. LLOYD ON THE RADICAL CURE OF HYDROCELE.

The following is the substance of some interesting clinical remarks lately made by Mr Lloyd at St. Bartholomew's Hospital, and reported in the *Medical Times* for January 5th.

1. Forcible Injection of the Sac of the Tunica Vaginalis. He employed this plan some years ago in several cases among the out-patients of the hospital; at first he thought with success, but, with the exception of one case, the disease recurred in all; and what was the permanent result in that one, he had no opportunity of ascertaining.

2. Acupuncture. He had also given acupuncture a fair trial, but found it a very uncertain remedy; but oftener successful in children than in adults.

3. Introduction of powder of Hydrargyri nitr. oxidum into the sac. This is the plan of treatment most relied on by Mr. Lloyd, and he has adopted it almost exclusively at the hospital for several years. It consists of the introduction into the sac, after it has been emptied of its contents, through the canula, of the substance finely levigated. This plan has been employed in a large number of cases, and hitherto without a failure, as well as without any untoward consequence whatever. It excites the necessary degree of inflammation, with as great, if not greater, certainty than the injection of wine, of solutions of sulphate of zinc, iodine, etc. It is, moreover, a much more convenient mode of treatment, as well as a saving of much time. The mercury is introduced, the patient is left to himself, and the surgeon is at once at liberty.

4. Pressure. Mr. Lloyd lately cured a case of Hydrocele by pressure—tightly strapping up the testicle directly after evacuating the fluid. The pressure was kept up for three days, by which time hernia humoralis was established; since which the patient has gone on precisely in the same course as is usual after vinous injection.

5. Vinous Injection. This method was adopted in the case which elicited the preceding remarks. After puncturing the sac, and drawing off about thirty ounces of greenish yellow fluid, Mr. Lloyd injected a pint of undiluted port-wine, which was allowed to remain for fourteen minutes.

### TOPICAL USE OF POWDERED ACETATE OF LEAD IN GRANULAR OPHTHALMIA.

Since 1834, M. Buys has employed powdered Acetate of Lead in the treatment of palpebral granulations. His success, especially in cases reputed incurable by other methods, has drawn attention to the practice of the Military Hospital of Bruges. The plan seems to be free from several objections to which cauterization with nitrate of silver is liable; and it is particu-

larly to be recommended, as curing granulations without destroying the palpebral conjunctiva, or causing the formation of bands of cicatrix tissue, the frequent sources of secondary evils.

The author thus describes his method of applying the Acetate of Lead :— "I first select", says he, "perfectly neutral Acetate of Lead : that which is sold in common shops is not always of this description, and gives rise to acute pains. A pencil, similar to those commonly used for applying a solution of the nitrate of silver, is slightly moistened in water, dipped in powdered acetate of lead, and then applied to the everted eyelid, where the granulations are situated. The eyelid is held down sufficiently long to allow the tears to moisten the salt of lead and wash off the excess. The chemical action of the tears on the powder must take place, before the eyelid be restored to its natural contact with the globe. This is one of the most important particulars to be attended to. If the tears be scanty, the pencil may be moistened by those flowing down the cheek, and then applied to the eyelid where the Acetate of Lead may still be undissolved. Whilst the eyelid is still exposed to the action of the tears, and of the air, the granulations may be seen to."

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### DR. JOHN CHARLES HALL, ON THE NITRATE OF SILVER AS A LOCAL APPLICATION IN ERYSIPELAS.

Dr. J. C. Hall has sent to us the following note :—"I am made (p. 58) to express the opinion, 'that, as the disease is constitutional, and not local, the repression, by Nitrate of Silver, of the outward inflammation, may often be most improper.' What I stated[1] most distinctly, was, that the application of the Nitrate of Silver *did not repel* erysipelas; but, that it limited the inflammation, and, when applied sufficiently early, prevented that fatal destruction of parts, which, before the discovery of this remedy, by Mr. Higginbottom, was, too often, a result of erysipelas. Of course no experienced practitioner would fail, at the same time the Nitrate of Silver was used locally, to exhibit such constitutional remedies as were indicated ; but I think no one will deny, that the checking the local disease in the bud will have no trifling effect in mitigating the constitutional symptoms." J. C. H."

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## TOXICOLOGY.

### ARSENIC IN UNFERMENTED BREAD.

The *Medical Gazette* has the following :—A few years since a pamphlet was published by "A London Physician," strongly recommending the employment of unfermented in preference to baker's bread. The unfermented bread is made by mixing bicarbonate of soda with the flour, and subsequently kneading it with diluted muriatic acid . . . . We predicted some time since, that accidents would arise from the use of common muriatic acid in making unfermented bread. The following extract is quoted from a letter by Mr. Davis, in the *Provincial Medical Journal* of December 26th. It comes in the shape of a communication from Dr. Henry, who says—

My attention was forcibly called to the question of impurities present in the common muriatic acid, by the injurious effects of bread made on the nonfermented principle, upon my own family and myself. In all, nausea and severe pains in the stomach followed its use (continued for three weeks before discovery); in some, instant vomiting and irregularity of bowels, though not actual diarrhœa ; and in one case (my footman), the outbreak of the arsenical eczema. I lost no time in testing the acid for metallic impurities, but, not happening to have any sulphuretted hydrogen, could at first detect nothing. When I procured some, I was astonished by its throwing down a

[1] *Lancet*, August 18th, and September 8th, 1849.

dense yellow precipitate, which I at first suspected to be tin (from knowing that the manufacturers also made muriate of tin), but soon discovered it to be Arsenic."

It has been long known to English chemists, that much of the sulphuric acid sold is largely contaminated with Arsenic. It is manufactured from pyrites, which generally contains arseniuret of iron. Arsenic, therefore, may be thus transferred to nitric acid, muriatic acid, and numerous salts in the preparation of which sulphuric acid is largely employed. It may even find its way into the diluted sulphuric acid used medicinally. Under a proper system of medical police, the sale of this poisoned acid would be strictly prohibited. [*Medical Gazette*, Jan. 11, 1850.]

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### POISONOUS EFFECTS OF THE BRASSICA NAPUS, OR WILD CORN KALE.

Dr. John Popham, of Cork, has lately recorded the following remarkable phenomenon: In the months of June and July of the present year, when very great destitution prevailed in the southern and western parts of Ireland, I was surprised to find a large number of persons from some of the famine-stricken districts of the Cork union, applying for admission into the work-house hospital, with very peculiar and alarming symptoms. They were chiefly the families of country labourers out of employment, emigrating from place to place in search of work, and totally deficient of the means to procure the merest necessaries of life. They all exhibited indications of deteriorated health, the hue of the skin being uniformly sallow and muddy-looking, totally different from the brown discoloration caused by exposure to the sun; the surface was also covered with that colourless downy hair, so characteristic of what the country people here call "impoverished blood." There was generally an œdematous state of the whole body, but always of the face and lower extremities, the former being sometimes swollen to an enormous extent, the distended state of the eyelids and upper lip especially producing remarkable deformity. The abdomen was tympanitic; the bowels torpid: the mucous membrane of the mouth and pharynx was inflamed, and in some parts ulcerated, and the gums spongy; the appetite was usually greater than natural, in some cases voracious; the urinary secretion was deficient and irritating, and that of the skin suspended; very distressing frontal headache and tension was also complained of; but the most curious symptoms, next to the œdematous appearance of the patient, was the state of the hands and feet, which were dry and shrunken, with blotches of a deep-red, resembling burns, on the backs of the hands and dorsum of the feet, the fingers and toes being frequently cold and livid. Similar blotches existed on the nose and forehead, and these varied in their consequences from simple discoloration to ulceration of a most troublesome description, terminating in loss of the cuticle and dropping off of the nails, with a marked disposition, in the aggravated cases, to gangrene. The œdematous appearance of these patients was so like that of persons suffering from extreme cardiac or renal disease, that I formed at first a very unfavourable prognosis; but, on a closer inquiry, I discovered that all the persons thus affected had made use of the field species of brassica as food. Some of the worst cases had used it almost as the sole means of support; others again had partaken of it at longer intervals, and with the addition of Indian meal or other farinaceous food. From the similarity of some of the symptoms to those produced in the human body by the acrid properties of the ranunculaceæ, I thought it possible that some plants of this family might by mistake have been gathered with the Kale, but the identity of the symptoms in all the persons, who were from very different parts of the country, led me to abandon the idea. This was further confirmed by showing the patients the respective plants, when, in all instances, they at once distinguished the yellow racemes and cordate leaves of the *Praiseach buidhe*, or yellow Kale, from any other. They stated that their mode of cooking the

herb for food, was to strip the leaves, rejecting the stalk, root, and flower, and to boil them with common salt or soda. Most of them had used the Corn Kale for a period extending from one week to six, before the unfavourable effects became manifest, and these were more rapidly produced in persons previously suffering from gastric or intestinal disturbance.

I am not aware of the effects above described have been heretofore observed. The family of plants to which it belongs—the *cruciferæ*—has always been considered salutary; but in many of its genera there exists a volatile oily principle, peculiarly irritating to the skin and digestive organs. This volatile oil, which in some genera, as the mustard tribe, resides more particularly in the seeds, and in others in the root, exists, in the wild varieties of the colewort tribe, also in the leaves, which give to the tongue a disagreeable biting taste. By cultivation, this acrid property becomes more diffused and diluted. The quantity of nitrogen, also, which the *cruciferæ* contain, affords great facility for the formation of ammoniacal products; and the tympanitic condition of the abdomen is most likely due to this cause. The analogy which exists between the enfeebled capillary circulation and ulcerative tendency in the extremities arising from the use of the Corn Kale, and the more marked gangrenous effects produced by the ergot of rye, is apparent; but whether it would have proceeded to sphacelus, I am not able to say, as, fortunately, the unsightly appearance presented by the patients led them to apply early for relief. The treatment consisted of such medicines as were best adapted to restore the action of the skin and kidneys, together with mild purgatives, warm baths, rest in the horizontal position, and wholesome food. The state of the extremities required careful stimulation until the circulation was restored, when the tepid water-dressing was the best application. It was some time before many of these patients regained their former health; and in some, the blotches have left a permanent mark.—[*Lancet*, December 15, 1849.]

## OBSTETRICS.

### DIAGNOSIS BETWEEN REAL AND APPARENT DEATH IN NEWLY-BORN CHILDREN.

It is well known how difficult it is, to determine whether a child born in a state of asphyxia be really dead. If the pulse be not perceptible, if respiration be absent, and if the beating of the heart be not heard, it is sufficient to lead most accoucheurs to decide that the child is born dead, and to decline making any attempt at artificial respiration—too probably fruitless. It would be important to possess a certain sign that life still existed, even though all its functions had apparently ceased. M. Van Hengel thinks he has discovered such a sign.

In May 1848, he administered ergot of rye to a patient labouring under hæmorrhage. The hæmorrhage was arrested; but the infant was born apparently dead. There was no respiration; the hot bath was first tried, then alternate immersion in hot and in cold water. Tickling of the nostrils also produced no result. M. Van Hengel thought of stimulating the sacral nerves by means of a stimulant enema. Having no syringe at hand, he took in his mouth a mixture of brandy and cold water, and blew it into the anus through a pipe. He then removed the pipe, and retained the liquid in the rectum for a few seconds by means of his finger. Three or four seconds after he removed it, the liquid was forcibly ejected, mixed with meconium. This experiment made such an impression on the parents, that though they had previously thought it unnecessary to have the child baptized, they now had that ceremony performed without delay. It was not possible to further reanimate the child; and a mixture of brandy and water, injected half an hour after, flowe out immediately.

In subsequent experiments on the dead body, the liquid either returned immediately, or remained in the interior. M. Van Hengel hence thought himself authorized to suppose, that by the use of the stimulant injection, the nerves of the rectum had been acted on so as to produce expulsive action; and that this denoted *that life still remained.*

It might, however, be objected that the expulsion of the enema was due to the contractile power of the intestines remaining some time after death; and that, to give any importance to the sign adduced by the author, it would be necessary to perfectly resuscitate a child, in which this sign alone denoted the existence of life. M. Van Hengel has had the good fortune to do this; and the following case will be read with interest.

Case. Madame B. was delivered of a female child, by the natural efforts, after a labour of two hours, during which, symptoms produced by shortness of the umbilical chord were perceived. This was twisted round the neck of the child, and pulsated very feebly; the infant did not cry; the skin was bluish, and the limbs tolerably firm. The cord was immediately cut, and about a tea-spoonful of blood expressed from it; the child was placed in a warm bath, after which, a little more blood flowed. M. Van Hengel then injected an enema of brandy and water; this was ejected in three minutes, in an arched form, with meconium. The infant was baptized; and air was blown into the mouth, the nostrils remaining open. This was done very cautiously at first, but soon with more force, and with the mouth of the operator applied to that of the infant. After a little time, the thorax dilated; pressure was now made on the ribs, and it was thought that the infant performed a share of the movements thereby produced. This operation was continued for three quarters of an hour. Alternate hot and cold baths were again tried; a spasmodic respiration seemed to set in, but at long intervals. As this diminished in intensity, an attempt was made to produce vomiting, so as to cause a deep inspiration, by tickling the palate and tonsils with a feather. The desired result was obtained; the infant made a deep inspiration, but without crying; and it was necessary to press the abdomen and thorax to produce expiration. On endeavouring to repeat the experiment, the mouth was found spasmodically closed, and it was necessary to introduce the feather into the nostrils. This induced a tendency to sneezing; and a strong expiration took place. This circumstance suggested a means of producing, at pleasure, inspiration and expiration.

The barbs of a feather were cut, so as to leave them about three centimètres long at the end; the stem was then stript of them for four or five centimètres, and beyond this they were left. On introducing the feather into the nose, the tickling of the nostril produced an effort at sneezing, and consequently an expiration; when the feather was carried as far as the velum palati, there was an attempt at vomiting, and consequently an inspiration; when it was carried still further inwards, the last barbs of the feather tickled the nostril, while the others only provoked an effort at deglutition. By alternately introducing and withdrawing the feather, efforts of inspiration and expiration were produced in succession. This process was continued for half an hour.

At the end of this time, the operation was suspended, because the infant lost some blood by the nose. The object, however, had been gained; the child was alive, and cried. The next day, a tea-spoonful of syrup of marshmallows was administered to it. Every thing went on well; and the child continues to enjoy health.

Such a fact as this is sufficiently important to call for a series of analogous experiments on a large scale. Practitioners should especially not lose sight of the ingenious means employed by M. Van Hengel to promote a kind of respiration at once natural and artificial, which may be substituted, at least at first, for the always difficult process of insufflation.

## REPORTS OF SOCIETIES.

### ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, January 8, 1850.

Dr. Addison, President, in the Chair.

Two Cases of complete Intestinal Obstruction, arising from Disease of the Sigmoid Flexure of the Colon and the Rectum, in which the Descending Colon was successfully opened in the Loin. By Frederick Field and Josiah Clarkson, Esqs., Members of the Royal College of Surgeons of England. Communicated by Joseph Hodgson, Esq., F.R.S.

I. Mr. Field's Case. On May 3rd, 1846, the author was requested to see J. R——, a coach-axle forger, aged thirty-three, corpulent and muscular, and a great beer-drinker. He enjoyed good health until a year back, when he began to suffer from pain in the bowels, constipation, and tenesmus, his stools becoming scanty, and being voided with difficulty. There was also some derangement of the functions of the stomach. Three months since, all these symptoms became aggravated, and were relieved only temporarily by purgatives. He often vomited after his food; his stools were voided with more difficulty, being of a more fluid consistence, though he had not noticed any diminution in their diameter. Four days before the author's visit, the bowels had ceased to act, and all the symptoms became greatly aggravated. When seen, the abdomen was greatly distended and tympanitic; there were pain, tenderness, and some bulging over the transverse colon; the pain was paroxysmal, and accompanied by strong tenesmus; vomiting was almost incessant. Five grains of calomel and two grains of opium were ordered; to be followed by a black draught every four hours. On the following day (May 4th), the symptoms continued unabated; the urine was scanty and high-coloured. Prussic acid and castor oil were administered at distinct intervals, and the calomel and opium continued. Some relief to the pain and vomiting was thus procured. In the evening, a purgative enema and a warm bath were ordered; the injection was immediately returned, and not more than a pint could be thrown up. On the 5th of May, the colon tube was passed up, but could not be introduced more than eight inches. Twelve ounces of blood were taken from the arm; larger doses of calomel and opium, croton oil, the cold douche, were successively tried, but without any relief from the bowels, or other than a temporary relief to the more urgent symptoms; galvanism was equally ineffective. Still the patient's strength and spirits were sustained until the 15th, when they began to fail, and his countenance, tongue, and pulse, betrayed a marked change for the worse; the matter ejected by vomiting had assumed a fæculent colour and smell. It was then determined that an operation was the only resource left, and this was accordingly performed. As the patient lay on his back or belly, no indication was observable of the seat of obstruction, for the abdomen was equally swollen on both sides, and no bulging was perceptible in either lumbar region, though percussion elicited a duller sound on the left than the right side. The patient was extended on a bed with his face downwards, and a transverse incision was made in the left loin, commencing about two inches from the spine, and carried directly outwards for five inches and a half, about one finger's breadth above the crest of the ilium. The skin, fat, latissimus dorsi muscle and quadratus lumborum were successively divided, and a shining membrane exposed. This last, which was mistaken for intestine, proved to be fascia; and when it was divided, a large quantity of fat was brought into view, which was carefully cleared away, and the intestine at length exposed, at a considerable depth. Sutures were passed through it, to retain it in its position, and subsequently to affix it to the edges

of the wound, and an incision was then made into it to the extent of half-an-inch, which immediately gave exit to an immense quantity of light-coloured fluid fæces. Vomiting entirely ceased, and the patient was relieved of all his urgent symptoms. The opening in the bowel being fixed by sutures to the skin, a large bread poultice was placed over the wound, and the patient was enjoined to lie on his left side. Through the following night, the evacuations continued abundant; the belly became soft and free from tenderness, and the general symptoms were still further relieved. On May 17th, the sutures had ulcerated from the intestine, which was adherent all around to the circumference of the wound. On the 18th, the wound was rather inactive; it was syringed with yeast mixed with warm water, and dressed with lint dipped in oil, the surrounding skin being smeared with cerate. Granulations subsequently sprang up, and with occasional variations and trifling drawbacks, he proceeded favourably, and his health became ultimately re-established, and he was able to follow his former calling, which required great physical exertion. The only interruption to perfect health resulted from occasional constipation, caused, apparently, in a measure, by tendency to contraction of the artificial anus, which was remedied by the introduction of a bone glyster-pipe, and the injection of warm water; thus the passage was dilated, and the fæces were, at the same time, softened. This state of things continued until the latter part of 1847, when the patient was attacked with symptoms of hepatic disease; he lost his appetite, and became emaciated and ascitic, and ultimately died in February 1848, one year and nine months from the time of the operation.

*Examination of the body.* The peritonæum was found covered with lymph, the liver granular and thickened, and the kidneys congested. The stricture of the intestine was found to be in the sigmoid flexure of the colon, and was about four inches in length, this portion being filled by a plug of coagulated lymph, which became broken up and detached by maceration in spirit, leaving the intestinal tube continuous, though contracted and slightly thickened. The plug resembled the deposit which takes places in the larynx in acute laryngitis. The artificial opening was funnel-shaped, with its apex externally; the outer orifice was contracted to the size of a small goose-quill; it appeared to be lined by mucous membrane. The lower portion of the intestine was much contracted.

II. Mr. Clarkson's Case. B. F——, aged twenty-one, a robust and healthy-looking woman, applied to the author, in July 1846, with symptoms of dyspepsia, the bowels not having been relieved during the preceding five days. She was ordered an aperient pill and draught. Two days afterwards she returned, the symptoms being still unrelieved, and bowels still constipated. A stronger aperient was administered, but still without relief. On the 22nd (the bowels not having acted since the 14th), she complained of pain in the umbilical and left hypochondriac regions; the abdomen was slightly distended and tympanitic, and pressure upon its parietes increased the pain. Constant nausea, but no vomiting; pulse 110; urine copious. To take croton oil, half a drop, every second hour. On passing the colon tube, it could not be introduced further than six inches. Two pints of fluid were injected, and returned untinged by fæcal matter. The abdomen became more distended and tender; flatus moved about the bowels, and appeared to be arrested in the left iliac fossa. Leeches were twice applied, and some of Battley's solution of opium given; vomiting had commenced. Subsequently, the following expedients were tried, but in vain, to induce the bowels to act: large doses of opium, the cold douche, free injection of water into the rectum, and its retention by pressure, galvanism; and on the 26th, the symptoms becoming more urgent, an operation was undertaken, Mr. Hodgson concurring in the propriety of the step, and urging its immediate performance. The patient was laid on her belly, a pillow being placed under the abdomen, so as

to raise it. An incision, five inches in length, was carried outwards from the edge of the erector spinæ muscle, about two fingers' breadth above the crest of the ilium; the quadratus lumborum and fascia were exposed and divided, and after some loose fat was removed, the intestine was reached: four ligatures were passed through it, and fastened, two to the upper, and two to the lower edge of the wound, and the bowel then divided longitudinally between them. A large quantity of fluid fæces at once escaped. The patient, who expressed herself relieved, was placed on her left side, in bed. The discharge continued very profuse, and a poultice was shortly after applied. On the following day, the symptoms were further relieved, and the distension of the belly had subsided, the escape of fæculent matter being abundant. From this time she steadily improved, and was able, after a time, to return to her usual household duties. Whenever the bowels became confined, aperient medicine, and an injection, relieved her; but a tendency to contraction of the bowels gradually exhibited itself, which was for a time relieved by the use of bougies. This annoyance increased, and her health began to suffer seriously. After the expiration of ten months, the patient's appetite failed, digestion was impaired, and she suffered from more constant and severe pain. The artificial anus was further dilated with sponge tents, and subsequently with the scalpel; but the constipation and other symptoms were not relieved, and she vomited nearly all she took into the stomach. She died in September 1847, having survived the operation nearly fourteen months. On examination of the body, the parietal peritonæum was found mottled, tubercular, and thickened; the opposed surfaces of the intestine were glued together, and to the liver, spleen, and stomach; these adhesions were very firm, and sufficient to have greatly interfered with the peristaltic action of the bowels. The small intestines were distended with fæces, but the transverse and descending colon were empty. The mucous membrane was ulcerated at several points: the obstruction was found to be about six inches from the anus, and on a level with the fundus of the uterus. It consisted of a dense, cartilaginous substance, surrounding the intestine and completely obliterating the canal; it appeared to have originated externally, and pushed forward the fundus of the uterus, to which it adhered firmly. On section, the canal was found to be completely obliterated to the extent of half an inch. The edges of the artificial opening were rounded and smooth, and the neighbouring mucous membrane was healthy.

Mr. Hilton had seen five cases of operation for artificial anus, either performed or thought of. He alluded to a case in which he had performed the operation, the patient living for seventeen days; the case he should bring before the Society. As regards the best position to make the external incision in adults, for the purpose of entering the colon in the lumbar region, without opening the peritonæum, he had found that a vertical incision, three inches or less in length (terminating below, at half an inch above the crest of the ilium), made parallel with, and one inch and a quarter distant from, the outer edge of the erector spinæ, enabled him to bring into view the external border of the quadratus lumborum muscle, and then to expose and open the colon which is placed in front of the muscle. He could not speak to the relative merits of the vertical incision, as compared with that selected by the operators in the cases before the Society; but he had found this vertical incision available in one case of obstructed colon operated on by himself during life, and in four other like cases in which he had opened the colon satisfactorily a few hours after death; and, he added, that he had repeatedly, on the dead body, demonstrated to his class, at Guy's Hospital, that a colon, although nearly empty, may be reached and opened with safety at the lower part of such an incision, without wounding the peritonæum. He had seen no danger or inconvenience from this operation. The pain and spasm round the margin of the wound, in one of the cases before the Society, in which Amussat's operation was performed, might depend on one of the lumbar nerves

being involved in the wound. Division of the nerve nearer to its origin, might relieve the pain and spasm.

Mr. Coulson said that he could not refrain from expressing his obligation to the authors of the communication which had just been read, for calling the attention of the profession to an operation, for the want of which he felt convinced many persons had died, whose lives might have been saved or prolonged if this operation had been performed. In cases where the obstruction depends on malignant disease, confined, as far as can be ascertained, to the bowel itself, and not of great extent, it may, or may not, be advisable to have recourse to the operation recommended to-night, according to a variety of circumstances, which can only be judged of in each case, as the amount of distress, the state of the system, the feelings of the patient, etc.; but where the local mischief is complicated with disease in any other organ, then the operation ought not to be entertained. But in the cases brought before the Society, the recent occurrence of the constipation showed that there was no malignant disease; and examination with the rectum-tube indicated where the obstruction was situated; so that no doubt could exist as to the propriety of the operation in these cases.

Mr. Hodgson had known two instances in which the operation was not successful, in consequence, as he believed, of the delay which had taken place in operating. It is, however, a most difficult point to determine when to desist from other remedies, and resort to an operation. Some cases of long-continued and obstinate constipation were ultimately relieved by taking, notwithstanding the vomiting, during several days, at short intervals, repeated doses of castor oil, sometimes with a little laudanum, after more active aperients had failed. Amussat's operation was easy of performance; indeed, it involved far less difficulty and danger than a common operation for strangulated hernia. If we reflected upon the parts to be divided, we should find that none of importance required to interfered with. First came the integuments, then the muscles, and then the fascia, which at first sight had been thought to be the bowel. In one of the cases before the Society, when exposed, the fascia appeared of a dark colour, and was supposed to be the gut. It was present in all cases, and when divided, a large quantity of loose fat, very like omentum, or mesentery, was exposed. Even in these persons this was, as generally, the case; and until this loose fat has been met with and divided, the operator may be satisfied that he has not yet reached the intestine. The operation is rendered more easy in cases of obstruction by the distended state of the bowel, so that in such instances it is next to impossible that any error or difficulty can arise in its performance. With respect to the precise spot at which this portion of the colon is situated, if two perpendicular lines be carried upwards from the anterior and posterior superior spines of the ilium, and a horizontal line be drawn from one to the other of the former lines, one inch above the highest part of the crest of the ilium, in an adult the centre of the horizontal line will be immediately over the descending colon, which will be penetrated by an instrument passed in that situation. In the cases read that evening, the greatest difficulties that had to be encountered occurred in the after-treatment, in consequence of the tendency of the artificial opening into the bowel to contract. In the case of the young woman, tents, bougies, etc., were of but little service in keeping the orifice open, and he thought that a canula, or tube of gutta percha, secured by a shield, might be advantageously employed when the wound began to cicatrize and contract. Looking at the result of some of the late formidable operations for removing diseased ovaria, he thought that the fears generally entertained of opening the peritonæal cavity were over-rated.

## WESTMINSTER MEDICAL SOCIETY.

Saturday, January 5, 1850.

Francis Hird, Esq., President, in the Chair.

Length of the Umbilical Cord. Dr. Tyler Smith exhibited a Funis, fifty-nine inches and a half in length. The average length is about eighteen inches; the longest of which he could find an account was detailed by Baudelocque, where the cord measured fifty-seven inches. In Dr. Tyler Smith's case, the cord presented, with the head. Such an extraordinary length was one of the causes of funis presentations; and also illustrated the power of the fœtal circulation. In this case, including the placenta, the length of the blood-channels beyond the umbilicus was upwards of ten feet, and still longer, if allowance be made for the spiral arrangement of the umbilical arteries.

Hysterical Ptosis.—Mr. Canton related the following case, which came under his care at the Royal Wesminster Ophthalmic Hospital. Emily T——, aged seventeen years, had menstruated at the age of thirteen years; the flow continued profuse for a week, when it suddenly ceased, in consequence of her being much frightened, and had not re-appeared until three weeks ago. She remained very sickly for a year after menstruating, when her eyes became inflamed, in consequence of some matter getting to them from the face of a child she was nursing. For this complaint, she was under treatment two months; and since that time has complained of dimness of vision in both eyes. She suffers pain occasionally in the head, but not of a severe kind. Light is stated to increase the impairment of sight; and when attempting to read for any time, "the letters run into one another"; or if working, she "misses seeing her needle" after a while. The pupils are dilated, but the irides are active in their movements. The patient is very hysterical, and suffers from globus, palpitation, waywardness of appetite, constipation, etc. The treatment adopted by Mr. Canton had been with a view to the establishment of the menstrual flow, by the exhibition of aloes, steel, lytta, and similar remedies, without, however, any resulting benefit. In October last, the patient found, suddenly, that she was unable to open the right eye, except by raising the upper lid with her finger, which, being removed, the lid again fell, and remained drooping. Pricking pain was now complained of in the eye, and in the corresponding temple; and she suffered still further diminution of vision. The iris, nevertheless, moved with its former activity, and the ptosis was unaccompanied by external strabismus, or a pupil larger than the one of the opposite eye. The fellow-organ continued, in all respects, the same as previously. Symptoms of an hysterical character being again present, in a marked degree, the plan of treatment was again resorted to by Mr. Canton which he had previously employed, and which for two months had been suspended. Mercury, strychnine, blisters, and such remedies as are ordinarily employed in the usual examples of ptosis were avoided, from the peculiarities presented by the case, which Mr. Canton considered might be fairly regarded as one having for its origin uterine derangement. The sequel proved this view to be based on fact; for, at the expiration of a month, (during which time the remedies were persevered in,) the ptosis disappeared as suddenly as it had occurred; and in a fortnight afterwards, the menses appeared, and continued to flow for ten days. Since that time, the vision of both eyes has been improving.

Stricture—Extravasation of Urine. Mr. Hancock was called, during last July to a gentleman suffering from Extravasation of Urine. He had suffered from Stricture for nineteen years, and had had the Stricture divided through the perinæum, and also the bladder punctured through the rectum, but without relief; as, in the first instance, the wound in perinæo was allowed to heal up without attention being paid to the urethra, Mr. Hancock treated

the extravasation in the usual way ; and in the course of a few days, with the patient's consent, again divided the Stricture through the perinæum. He kept the wound open by passing a No. 10 gum catheter into the bladder by that passage until a No. 11 silver catheter could be readily passed along the urethra into the bladder, when he allowed the perinæal wound to close, and the patient has now recovered. He considers the case of interest, as bearing upon the questions, mooted during last session, with reference to the treatment of abscess of perinæum connected with obstinate Stricture of the Urethra, and also with reference to the operation for opening the urethra from the perinæum, and its after treatment, especially in relation to the employment of the catheter. When the abscess is unconnected with an opening into the urethra, it is better to abstain from the employment of the catheter, notwithstanding the patient may experience difficulty in urinating, but Mr. H. thinks that where such complication exists (which is most frequently the case), the employment of the catheter should be carefully attended to, particularly when it has been found necessary to open the urethra through the perinæum : in such a case the instrument ought never to be entirely discontinued. To this cause Mr. H. attributed the failure of the first operation in the case just related as well as in others to which he alluded ; the catheter had been neglected, the parts allowed to heal and contract, and thus the patient relapsed.

In conclusion, Mr. Hancock spoke of the common perinæal operation for opening the urethra. He considered that the difficulties of its performance were greatly enhanced by the situation at which the urethra was usually opened, the opening being made towards the anterior part of the membranous portion of the urethra, which is sometimes completely cut across, so that when the catheter is introduced and passed along the anterior part of the urethra, it comes out through the wound, but the posterior part having nothing to support it, the sides of the canal fall together, close up, and great difficulty is experienced in hitting it with the point of the catheter ; this difficulty may be obviated by making the opening in the urethra further back, close to the front of the prostrate gland. In performing the operation, the surgeon will be greatly assisted by recollecting that the urethra, passing through Cowper's ligament, corresponds exactly to the points in the raphé of the perinæum, midway between the posterior root of the scrotum and the anterior margin of the anus ; and that a knife plunged straight in at this point will reach the membranous portion. After describing the various steps of the operation, he concluded his paper by observing, that the catheter employed should be sufficiently large to fill the canal of the urethra, otherwise the portion of the urethra behind the Stricture when divided will fall together, and the point of the instrument catch, and thus be prevented entering the bladder.

### January 12, 1850.

Francis Hird, Esq., President, in the Chair.

On Primary Venereal Ulcers, not Curable by the Action of Mercury. By Benjamin Travers, Jun., Esq., F.R.S. The author observed, that it is admitted the Hunterian definition no longer applies in a great majority of cases ; and it is not at present safe to assert, or fair to presume, that all forms of Primary Venereal Sore require mercurial treatment. It is true that this remedy is generally employed, from a fear of incurring the risk of secondary symptoms, which always, more or less, follow the non-mercurial plan. Much patient inquiry, however, has shown that many primary sores do not require mercury, and that, in some, the healing process is even retarded by its use ; and there are other instances, which do not require, or will not bear, the local use of mercury, but require, for the subsequent well-being of the patient, that the system should be subjected to its action. The object which Mr. Travers had in view, was to elicit the experience of his professional brethren, with the view of forming a more precise diagnosis of those conditions which do or do not require mercury. He did not believe that there was more than one type

of lues; but its forms he had found, in conformity with the observations of others, infinitely varied. From the same source of contamination, one person may contract a gonorrhœa, another primary sores, while a third may escape altogether. Mr. Travers related a case, in which gonorrhœa, and sores requiring mercury for their cure, were contracted by intercourse with a woman who exhibited no symptom of disease. He also referred to the fact, that foreign seamen inoculate females in London with venereal phagedæna in its worst form, and to the communication of frightful venereal sores to our men and officers during the Peninsular war, by the native women. Yet those who imparted the disease had not been prevented from labouring at their ordinary avocations, and were cured by means which many would consider worse than trivial. These facts were mentioned, as illustrating the share which the constitutional susceptibility of the individual had in producing the particular form of syphilitic ulceration. An over-exclusive attention to these constitutional tendencies has, however, not unfrequently tended to mislead the practitioner. Mercury has been abruptly stopped, or given in insufficient quantity, so as only to exasperate and promote that, which it was intended to annihilate.

In the many cases, in which mercury does no good, or actually does harm, it remains to be determined whether the peculiarity is due to idiosyncracy alone, or whether the perverted action belongs in part to individual temperament, and in part to the remedial agent operating upon a poisoned system. Is there any rule, by which we may be emboldened to say, that, under certain circumstances, this remedy may and ought to be withheld? The class of cases brought under consideration were exceptions, but by no means unfrequent; and hence arose the value of the inquiry. Mr. Travers related the following case, which had forcibly suggested the question to him.

Case. A young man, a shopman, had been under treatment since May 1849, for a superficial spreading ulcer of the glans penis, covering its sides and apex, and nearly surrounding the orifice of the urethra. Mr. Travers first saw the case on the 8th of November. At this time, the edges of the sore were raised and irregular; its surface was smeared with a greasy secretion; it was deeper in some parts than in others; there was no promise of cicatrization; but, at the same time, it was not disposed to spread rapidly. The patient was sallow, of small stature; the pulse was irritable, the tongue clean, the bowels acted regularly, the appetite was unimpaired, and rest at night uncertain. He was rather anxious about the disease, but was not constitutionally ill. Mercury had been administered, both internally and locally: hydriodate of potash had also been perseveringly given. No local improvement was produced, nor had his mouth been affected in the slightest degree. Mr. Travers believed, that the case required mercury for its cure, and succeeded in getting the gums affected, in about three weeks, by the diligent use of Plummer's pill. Black wash, with a little mucilage, and a scruple of powdered alum, in a six ounce mixture, were at first applied: but the surface of the sore only became cleaner and more level. Mercurial action was kept up by the use of Plummer's pill at night, and the ulcer was dressed with cold water. A draught, containing one drop of nitric and two drops of muriatic acid, with some liquorice and poppy syrup, in water, was also administered twice daily. There was now an appearance of healing on one side of the sore, but it was less clean and wider in an opposite direction. The mercury was entirely discontinued: and ten drops of the tincture of muriate of iron were given twice a day, the cold water dressing being continued. The sore was twice touched with nitrate of mercury. The ulcer rapidly improved, and the patient regained his health and spirits. No secondary symptoms have yet appeared, and Mr. Travers did not anticipate their occurrence. In another case, in which mercury had proved inefficacious, the sore had been healed under the use of full doses of disulphate of quinine, with cold water dressing, and a trip to the sea-coast. Secondary symptoms had not super-

vened. In a third case, of a similar character, the individual remained well for some years, but had recently been compelled to quit business, in consequence of impaired health, and of penetrating local ulcers and glandular swellings. In this patient, there was some reason to suspect the presence of struma. Notwithstanding these and other similar cases, Mr. Travers was still an advocate for the use of mercury as the general rule ; but in certain cases its exhibition is, to say the least of it, useless.

Mr. Travers observed, that the sores contracted by impure intercourse are typical of one and the same poison, but people are not alike as regards *the remedy*. In this anomalous case, he thought that the explanation turned largely on a latent peculiarity of constitution, the nature of which we must be content to arrive at chiefly through the teaching of the medicinal agent. He looked, however, for an earlier, if not a better guide, in some indication to be drawn at first sight from the aspect of the local disorder, and an estimate of the powers of the patient :—a result which would require lengthened and careful observation. It is not enough to say, that struma is present in the exceptional cases : for many scrofulous subjects bear the action of mercury well. When the system is inaccessible to the action of mercury, the sooner this is known the better. It is satisfactory to know that such cases may be cured by other means, and that they do not then suffer from secondary symptoms.

In conclusion, Mr. Travers deprecated the system of giving mercury in inadequate doses, which, together with the uncontrolled disease, engenders the multifarious and hybrid disorders which seem to bear out the non-mercurialists in all their objections, if not to render their triumph complete. The mercury should be either given effectually, or wholly omitted. No one who has watched the effect of mercury, in summarily retarding the progress of some phagedænic ulcers of the genitals, can doubt its efficacy ; especially when it is considered that the patient will, after the usual interval, suffer from secondary symptoms, unless they are averted by a mercurial course.

The discussion, which was interesting but discursive, was adjourned.

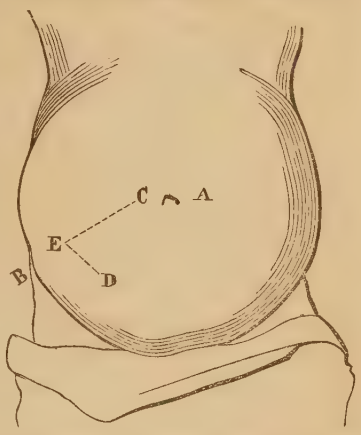
## January 19, 1850.

### Francis Hird, Esq., President, in the Chair.

New Operation for Ovarian Dropsy, by Mr. I. B. Brown. Mr. Brown was anxious to be understood as never having condemned operative surgery for the relief or cure of this disease. Pressure should be first tried ; and after that and other remedies had been unsuccessful, it was not only justifiable, but advisable, to have recourse to operation. He believed that the plan he was now about to submit to the Society, coupled with another which he would also mention, would be found of practical utility, and be of less danger to the patient than ovariotomy. He would not enter into the very interesting case in which this operation was performed ; he would do so fully hereafter, in the series of his cases which he from time to time should place before the profession, whether successful or unsuccessful : he would merely remark, that the patient was considered by herself, and also by Mr. Fergusson, as having only a few days of life remaining. The operation was successful in prolonging her life for some weeks. This operation differed materially from Mr. Bainbridge's ; that required the patient to be in the prone posture for many months ; this enabled her to be on her back, on water cushions, which added very greatly to her comfort, and also permitted the nurse to dress and clean the wounds without fatigue or annoyance to the patient ; the surgeon could also apply pressure over the cyst, by placing strips of plaster on the opposite side of the abdomen, and bringing them firmly over beyond the incision and open wound.

He placed the patient on the edge of the bed, in the horizontal posture ; and then, drawing an imaginary line from the umbilicus to the superior spinous

process of the ilium, and dividing it into thirds, he made an oblique incision from above downwards, and from within outwards, through part of the middle third and into the outer third. The oblique incision was about three inches in length. He dissected carefully through the muscles and fascia down to the peritonæum; through this could be seen the whitish shining coat of the cyst. He then made another smaller incision at right angles to the first, and dissected down to the peritonæum; this incision was about an inch and a half in length. At the point of the angle, *E*, a large-sized trocar was introduced, and the fluid drawn off. The canula being kept in, the peritonæum was divided from *E* to *C*, and reflected back; then the cyst was stitched by sutures to the aponeurotic tendon of the external abdominal oblique muscle, carefully avoiding the other structures. These sutures were nine in number, and were so arranged as to secure completely the cyst on all sides to the tendon of the muscle, and prevent any escape of the fluid from the cyst into the peritonæal cavity. The canula was now withdrawn, and, by means of a pair of scissors, the cyst was divided from *E* to *C*, between the sutures; a pledget of lint, soaked in oil, was then introduced into the wound, and changed occasionally, and some adhesive straps were placed across the abdomen, to keep up gentle pressure. Not a single bad symptom, referrible to the operation, followed. The second operation was performed in a similar manner, and in the same position; but a piece of the cyst was cut out, the fluid being first evacuated, and then the remaining portion of the cyst was allowed to return to the peritonæal cavity, the external wound being closed. Pressure was applied over the whole abdomen by means of adhesive strapping and flannel bandage. This operation was intended to imitate spontaneous rupture, and was only to be recommended where the fluid was of an unirritating character.




*A*, umbilicus; *B*, superior spinous process of the ilium; *C*, oblique incision; *D*, smaller incision; *E*, point of puncture.

Premature Labour, and Symptoms similar to those of Irritant Poisoning, induced by excessive indulgence in ardent spirits. By Dr. Cormack. After briefly referring to cases of poisoning by alcohol, detailed in "Taylor's Medical Jurisprudence," and to a paper by the late Dr. Nicol, of Inverness, in the *Edinburgh Monthly Journal* for June 1844, in which are given the post-mortem appearances in a fatal case of rapid poisoning by whisky, Dr. Cormack gave an account of a case which had recently occurred to him. The leading particulars are embraced in the following abstract. Dr. Cormack was sent for in urgent haste during the night, to a lady in premature labour, and affected with violent vomiting and extreme depression. Upon examination, a long loop of the funis was found protruding from the vagina and lying under the nates. The os uteri was so slightly dilated, as not to admit the finger without some degree of difficulty; but a head-presentation was readily recognized. The patient was a stranger to Dr. Cormack; but he has been able to obtain a complete account of her medical history. Previous to marriage (six years ago) she was subject to the globus hystericus, with associated sensations of agony and impending suffocation. For these attacks, stimulants were freely prescribed by a physician, till at last she only found relief by taking a glass of brandy. Under this system, she acquired a craving

for stimulants, which has on several occasions been irrepressible, even though, since marriage, there has not been the slightest return of the hysterical seizures. On four occasions, the excessive use of stimulants has brought on dangerous illnesses, in two of which the predominating symptoms were those of delirium tremens; and on the two other occasions, they seem to have been such as characterize gastro-enteritis. Several times she has had epileptiform seizures, immediately after taking a large quantity of ardent spirits. When abstinent, her health is excellent: and the potation impulse is often in abeyance for a very long period. She has had three abortions at very early periods, and one miscarriage about the seventh month, three years ago. At that time, she seems to have been in great jeopardy from hæmorrhage, as it appears that she was in labour for twenty-four hours, and the gentleman in attendance deemed it necessary to call in Dr. F. Ramsbotham.

The most urgent symptom which Dr. Cormack found on his arrival, was extreme depression. There was some transient mental obscuration, characterized by delirious and incoherent talking about her ordinary affairs; and she several times addressed herself to persons who were not present. The pulse was rapid, very compressible, and for minutes at a time imperceptible at the wrist. She had been taking regularly, every three hours during the day, a saline effervescing draught, prescribed by her medical attendant; but the sickness and gastric pain had gone on increasing. Dr. Cormack applied sinapisms to the pit of the stomach, and administered strong coffee with brandy; and some of the doses, which were small in bulk, remained down for nearly ten minutes, and produced a slight reaction. With this improvement, considerable oozing of blood came on from the uterus; and as the hæmorrhage increased, and the vomiting and depression became really alarming, Dr. Cormack resolved to hasten delivery by such means as the circumstances might require; and, as a first measure, he had a turpentine enema administered. Very soon, the heart's action, the respiration, and the skin, gave evidence of the improved condition of the patient; and the expulsive efforts of the uterus became regular and energetic. The vomitive straining, however, continued with great severity. In about an hour and a half from the administration of the turpentine enema, there was born a dead fœtus, of about the sixth month. During and after the birth, there was scarcely, if at all, an unusual amount of hæmorrhage; but nevertheless it seriously affected the circulation, and occasioned some anxiety from impending syncope. Dr. Cormack removed the placenta with the hand, and, through the abdominal parietes, firmly grasped the uterine tumour, till it had become so regular and reduced in size, as to prevent the risk of farther hæmorrhage. A well-padded and carefully adjusted abdominal bandage was then applied. After about twenty minutes respite, the sickness and depression returned; and, having no creasote with him, Dr. Cormack administered a pill of one grain of solid opium. It soon afterwards came up. One drachm of the Edinburgh solution of the muriate of morphia was then given, and with better effect. About seven A.M., Dr. Cormack left her calmer, of natural warmth, and altogether in a more satisfactory state, though constantly roused from broken and delirious slumbers by violent attacks of retching. At ten o'clock, the sickness was less harassing. At this time, she took a pill containing two drops of creasote, made up with crumb of bread; after which she had no vomiting for two hours, when it was re-excited by attempting to take a little cold beef-tea. Upon examining the interior of the mouth, there were found intense general stomatitis, considerable glossitis, (as evinced by the swollen and painful condition of the tongue,) and a red and turgid state of the pharynx as far down as the eye could reach. It was now ascertained that in the ejecta there had been a good deal of that sort of matter usually compared to coffee-grounds, which is often thrown up in the congestive forms of tropical fevers, and which is blood exuded into, and altered by, the stomach. During six days, she went on improving very slowly, but without any back-going, and on the seventh she could retain tepid food

in the liquid form, without pain or nausea being excited. During these six days the quantity of aliment taken was infinitesimally small, not exceeding, Dr. Cormack would venture to affirm, what an infant of a year old would take at a single meal; it consisted of a few spoonfuls of tepid beef-tea, with a solution of isinglass and gum arabic. It was only at first, immediately after taking a dose of creasote mixture, that any ingesta could be retained. This mixture, in which the creasote was largely diluted, was regularly taken after the first morning, and was the only medicament prescribed. On the third and fifth days, the bowels were moved by tepid water enemata. It was impossible to ascertain the exact quantity of stimulants which had been taken; but it was established, that during the four or five days before Dr. Cormack first saw her, she had taken no food, but had consumed clandestinely about twenty shillings' worth of various stimulant drinks, principally gin, brandy, and wine, but including some ale.

Dr. Cormack thought that the principal points of interest in this case were the three following:—

1. The extreme nervous depression caused by the alcoholic stimulants being nearly converted into irrecoverable prostration, by an inconsiderable amount of hæmorrhage.
2. The satisfactory result of the simple and easy means used for inducing uterine contraction:—viz., in the first instance, the turpentine enema causing quick expulsion of the fœtus; and subsequently the grasping of the uterine tumour, arresting and preventing the hæmorrhage.
3. The satisfactory recovery under the combined influence of abstinence, and of the creasote, which allayed the vomiting, and acted as a specific sedative upon the inflamed and morbidly-excited mucous membrane, and nerves of the alimentary canal; and thus, beneficially upon the system generally.

Dr. Daniell doubted very much the propriety of giving creasote in such a case. It was generally used only in cases of vomiting from passive disease. From its acrid properties, it would increase inflammation.

Dr. Snow said, that though creasote was a local stimulant, it possessed decided narcotic properties. In the *Provincial Medical Journal* a case was recently related, in which a patient became insensible from inhaling the vapour of this medicine too freely applied in tooth-ache—in which affection, Dr. Snow believed, the benefit was to be attributed to the narcotic properties of the creasote. Experience alone could decide, whether it could be advantageously given to allay morbid irritability of the stomach, when inflammation was present.

Dr. Sibson remarked, that there was nothing irrational—but the contrary, in treating the injurious effects of one stimulant and narcotic, such as alcohol, by the administration of another stimulant and narcotic, such as creasote. Michaelis and Humboldt found, that when the excitability of a muscle was first stimulated, and then exhausted by an acid, its excitability could be again immediately stimulated, and subsequently exhausted, by means of opium. The excitability of the muscle thus a second time exhausted, and now by means of opium, could be again roused and again exhausted by an acid, the effects of which could again, in like manner, be removed by the opium. In a similar manner, the injurious effects of the alcohol in Dr. Cormack's case was rationally met, by the counteracting effect of creasote; and it had likewise also been successfully met by the administration of opium—another stimulant and narcotic.

Dr. Cormack had given creasote for a great number of years, in cases of vomiting depending on different causes; and although it possessed acrid properties when undiluted, and was properly classed among the narcotico-acrid poisons, yet, when judiciously administered in medicinal doses, it was a sedative very similar in its behaviour to prussic acid. So far from there being any objection to the application of creasote to inflamed surfaces, it possessed

an almost specific effect in controlling inflammation, being in that respect similar in its operation to nitrate of silver. The solid nitrate of silver and pure creasote were often almost magical in their beneficial effects, when applied to an inflamed surface:—and in such cases dilute solutions were often much less safe, being actually more apt to produce a violent increase of the local action.

Adjourned Discussion on Mr. Travers, Jun.'s, Communication on the Forms of Venereal Ulcer. Various Fellows addressed the Society; but we find it impossible to appropriate space to their speeches, as the facts and opinions stated, though interesting, were not novel; and in some instances did not specially bear upon the points suggested by the author for discussion.

Mr. Acton would confine himself to two or three questions. 1. What is a venereal sore? Previously to discussing syphilis, this preliminary inquiry must be settled and agreed upon. That sores, venereal and of other kinds, are met with on the organs of generation, no one would doubt;—but what was the meaning of a venereal sore? Different practitioners entertained opposite opinions on this preliminary inquiry, as might be observed by the speeches delivered on this occasion. He (Mr. Acton) was in the habit, when attached to the Continental hospitals, of inoculating sores. When the characteristic pustule appeared, no doubt could exist that he had to treat a venereal sore. By watching a large number of such chancres, and treating them without mercury, proof positive was afforded that they were curable without mercury, and, in the large majority of cases, secondary symptoms did not follow. Such was the result in simple uncomplicated chancres or venereal sores. But if the venereal sore were complicated, that is to say, if it were aggravated by irritability of constitution, bad diet, by phagedæna, induration, etc., and mercury were indiscriminately given, the consequences were of the most serious kind. These experiments clearly showed why the great differences existed as to the proper treatment of venereal sores. Mercury was required for some forms of indurated sores, iron for the phagedænic and irritable, opium for the inflammatory, as he had elsewhere shown. Syphilis no longer bore any specific treatment; the day was past in which to say that, if a sore did not get well of itself, mercury must be used; this was a fatal error, attended with the worst consequences both to surgeon and patient, and yet it was still followed. In the short time given to the discussion of such an important subject, all the material points could not be touched upon, but simply some of the leading facts. Mr. Acton attempted in every possible way to lay aside the use of mercury, even in the indurated forms; he tried to omit it particularly when the sore occurred in delicate constitutions, and substituted iodide of potassium with excellent effects. In private practice, however, another question of no less importance arose: was it expedient to omit the employment of the mineral? This would be answered in a different manner, according to the experience of surgeons. He might relate a case, which put the question not in a scientific view, but bore on the point of expediency, as interesting to the junior members of the profession.

A gentleman consulted him with an indurated sore. It was thought that mercury might possibly be avoided, and the iodide of potassium was tried. The treatment succeeded in removing the induration, but secondary symptoms followed; the patient consulted an eminent surgeon, Mr. Acton believed the father of the author of the paper, and mercury was at once prescribed; the patient naturally recovered, but he, Mr. Acton, lost his patient, and was told by some over-indulgent friends of the gentleman, that he, the patient, would probably have lost his nose had the potash been persisted in. These cases were not frequent; but those who attempted to treat patients without mercury were exposed to such consequences; results like these, however,

would never deter him from attempting to cure patients without mercury, particularly in delicate constitutions; and he should shortly, in a new edition of his work, show what could be done with iodide of potash, even under the most unfavourable circumstances.

Now, although not an advocate for the indiscriminate use of mercury, he was convinced that when given, it should be administered in sufficient doses and continued for a sufficient length of time; half the relapses depended on this omission. As to this or that preparation being preferable, he was at issue with much that had been said on the subject; he believed that there was more in the mode of administering than in the preparation itself. But the discussion of these matters would occupy too much time, on an occasion like the present, when he had come rather to learn the opinion of others than to communicate his own.

Mr. J. F. Clarke, with reference the remarks of various speakers who had advocated the use of mercury, mentioned, that in some countries, where the mercurial treatment of the venereal disease had never been adopted, secondary symptoms were unknown.

Mr. Travers, in reply, would reiterate his inquiry, as to whether our collective experience could supply a general rule, whereby we might at once recognize and distinguish certain primary sores, contracted under circumstances which would admit of no doubt as to their origin, but which could not be mercurialized either with safety or success; and further, what were the conditions which should lead one to decide against the internal use of mercury. The discussion on his paper, though often irrelevant, had been illustrative of the fact, that the venereal disease has gradually become milder in its character, although there are many cases in which the Hunterian definition still holds good, and for the cure of which mercury is indisputably necessary. In the occasional appearance of such cases, he was a firm believer. He had been led to reconsider the subject by observing cases, of the origin of which there could be no doubt, but which would not yield to the ordinary modes of treatment. He did not refer to chaps or excoriated surfaces, which only require to be let alone; nor did he speak of the pseudo-syphilitic or gonorrhœal modifications of the disease. But he referred to certain ulcers, of indubitable syphilitic origin, which appear from seven to ten days after connection, varying much in their subsequent history and complexion, but which do not only not yield to mercury, but are actually retarded, if not actually hindered from healing, by it; a form of the disease which, in fact, *will not bear to be mercurialized any longer*. Of these sores, some are flat, others excavated: in some the surface is moist, in others dry or clean; in one instance, the edges are raised and irregular; in another, level or excavated. Still, they have this character in common, that they are indolent—whether spreading or contracting, the work is slow and uncertain.

His remarks were intended as indicative of the kind of observation, which should enable a surgeon to decide positively whether mercury should be employed or not, instead of waiting for the empirical teaching of the remedy. In addition to the local appearances, we have as guides the temperament or constitution of the individual. The explanation of the virulence of syphilis in the French army before Naples, and in the British army in the Peninsula, seemed to be, that it underwent amelioration at certain epochs or in certain climates, while at other places or times it has broken out, as it were, afresh. The law of which he was in search must be founded on such considerations, and on the right appreciation of such circumstances as poverty and intemperance, and the general aspect of epidemic diseases at the time.

Mr. Travers replied to a remark, that the matter of gonorrhœa will not produce a sore, to be followed by secondary symptoms; and referred to the experiments of Mr. Hunter, and to the common opinion held among surgeons of the present day, that gonorrhœal matter, applied to a broken surface, may produce all the secondary symptoms which arise from genuine syphilitic

poison. In conclusion, Mr. Travers remarked, that if the assertion of several army authorities be correct, that mercury may be dispensed with, it is a proof that the power and resources of the human constitution are eventually superior to the influence of the poison; but he thought that some of the cases would have done better if mercury had been used for their cure. In private practice, he dared not withhold mercury when the local symptoms were well marked. But as it was well-known that many ulcers could be, and were healed without it, he asked for greater refinement of observation, and an accurate discrimination of cases, in the further progress of this inquiry.

Dr. Henry Bennet would like to ask Mr. Travers, before the society adjourned, whether he did not think that the observations of Ricord, as to urethral discharges only producing chancres, in those cases in which there was actually a chancre within the urethra, explained the statements of Mr. Hunter, without proving the identity of gonorrhœa and syphilis.

Mr. Travers said he had quoted the experiments of Hunter as he had found them, and he had no reason to distrust their accuracy.

## SURGICAL SOCIETY OF IRELAND.

December 15, 1849.

Andrew Ellis, Esq. in the Chair.

Case of Cauliflower Excrescence of the Uterus. By Mr. Tufnell. The author trusted that the history of this case might cause the ligature to be more employed; for in no instance could appearances be more unpromising, and yet, comparative health was for a time restored, and life considerably prolonged.

Susan N——, aged forty-two, of small stature, sharp features, and with dark brown hair, the only child of parents who both reached an advanced period of life, was married at twenty years of age. Her first child was born within the year, and lived till it was six years old. At her second confinement, she had still-born twins; her third, fourth, fifth, and sixth children, were also still-born, delivery occurring in each case between the seventh and eighth month. The seventh child was born alive, and is healthy and strong. The eighth and last child, she also carried to the full time: the labour was protracted, and finally terminated by cephalotomy, and the removal of the body of the child. This occurred five years since. She never entirely recovered; she suffered at first from dyspepsia, then from flatulence and loss of appetite, and finally her spirits gave way. Three years ago, she suffered from menorrhagia; it, however, spontaneously ceased, and did not recur until the early part of the year 1848. Her menstruation was always regular as to time, but generally in excess. In February 1848, it became violent, and till she came under Mr. Tufnell's care in June, hæmorrhage had never ceased, and was increased at the monthly period. Upon making an examination, for the purpose of ascertaining the cause, he found the upper half of the vagina to be filled with cauliflower growth. Its surface was of a mottled gray appearance, exuding florid blood, its interstices filled with coagula, the whole forming a tuberculated mass with a sickening fœtor. The complexion was pale and wan, and the skin was of a tallowy shade. She could scarcely drag herself along.

Satisfied that nothing but removal of this fungoid growth could check the bleeding, and thereby offer a chance of prolonging life, Mr. Tufnell obtained the valuable opinions of Drs. Montgomery and Beatty. The latter kindly offered her a bed in the City of Dublin Hospital. A salmon-line ligature was placed by Dr. Beatty (with the aid of Gooche's canula) round the base of the growth, cutting through a considerable portion of it at the time; the remainder came away upon the seventh day. Little pain was experienced; that felt being rather a dragging sensation than actual pain.

She was progressing favourably, and indeed might have been regarded as convalescent, when, from incautious exposure to cold, she was attacked by inflammation of the lung. Her life was in danger; but she left the hospital late in autumn, with her general health good, and her person inclined even to be fat. She did work as a domestic servant, and continued actively employed in this capacity for nearly six months.

During this period, she was again under the author's care. The functions of the uterus were healthy, the catamenia appearing at the ordinary time. The surface from whence the malignant growth had been removed, had healed into the dimensions of a shilling, leaving a healthy-looking raspberry ulcer surrounding the orifice of the womb, with an elastic cartilaginous base, of the size of a half-crown. To this ulcer escharotics were constantly applied, and the disposition to fungous growth thereby kept in check. The ulcer, however, obstinately refused to cicatrize beyond the point to which it had at first healed. The tendency of this ulcer to reproduce fungous growth was most unequal. Sometimes it would remain indolent for a considerable time, then suddenly, as it were, spring into life. After each menstrual period, the surface became more spongy, and the granules of a deeper red. During the whole of this time, the patient made no complaint of pain, but had occasional stitches running, or rather shooting, from the pubes to the lumbar glands. All tendency to hæmorrhage was controlled, and the local affection restrained to a small ulcerated spot, insensible to any escharotic that was applied. Internally she took either a cold infusion of bark with sulphuric acid, or mineral acid alone. This, and an occasional purgative of colocynth, with hyoscyamus at night, constituted the medical treatment. Nothing could be more satisfactory than her condition at this time. In June, however, whilst using exertion during her menstrual course, violent hæmorrhage came on, from the cavity of the uterus—not from the surface of the ulcer. Gallic acid, in five-grain doses, repeated every third hour, tincture of Indian hemp, muriated tincture of iron, infusion of matico, and ergot of rye, were all in turns employed to suppress the discharge of blood; but, as might have been expected, failed to do so whilst she continued to move about. Being much weakened by the hæmorrhage, and incapable of following her employment, Dr. Beatty kindly re-admitted her into the City of Dublin Hospital, when, under constant rest, the bleeding again ceased, and she returned to her home once more. Shortly afterwards, in the early part of August, she was attacked by diarrhœa, the discharges being frequent and large, consisting of watery fæcal fluid. Opiate enemata and astringents produced only temporary effect, the purging constantly recurring up to the 27th of September, on which day it finally ceased, shortly however to be followed by sickness and vomiting, rejection of the contents of the stomach, and lastly of the bowels as well. Tenderness of the abdomen supervened, and symptoms of strangulated intestine ensued: no hernial tumour could, however, be found. She gradually sunk: and died upon the 4th of October 1849, one year and five months after the removal of the growth.

For the six weeks preceding death, no treatment was adopted to check the fungoid growth; and an inspection of the preparation will show, that the moment escharotics were laid aside, it again sprung into being, a small tumour having sprouted from the anterior lip of the womb, where it may now be seen to exist.

*Dissection twenty-four hours after Death.* On opening the cavity of the abdomen, the uterus was seen prominent, of a greyish hue, mottled with purple spots, smooth upon its surface, of the dimensions of a large pear, its fundus being upon a level with the pelvic brim, wedged in between the bladder in front, which bore a healthy appearance, and the rectum behind, which was of a deep purple hue, convoluted and nodulated as if filled with solid fæcal matter, but which subsequently proved to be masses of scirrhous deposit. The peritonæum covering the intestines, as well as that lining the abdomen,

was subacutely inflamed, more particularly towards the right iliac fossa. In many places, the peritonæum was studded with small tubercles, varying in size from a millet seed to that of a pea. The liver was firmly adherent to the diaphragm : its substance was soft, of a pale nutmeg colour, and slightly greasy. The spleen was healthy. The right kidney was preternaturally soft, but bore no other signs of disease. The left was of natural size, and externally bore a healthy appearance; but when cut into, the pelvis was found filled with clotted blood, and a small fungoid growth, apparently of the same character as that sprouting from the womb, was seen occupying the upper portion of the tubular structure in the substance of the organ, between two of the mamillary processes. The pancreas was slightly enlarged, but of normal consistence. The stomach and duodenum were healthy, as also the small intestine, down to the right iliac fossa. Here a knuckle of this gut was impacted between the right border of the fundus of the uterus, the ilio-pelvic brim, and the edge of the rectum. In this position it had become fixed by adhesions of old standing, and in addition was acutely inflamed, the peritonitis radiating from this spot over the whole abdomen. The colon was unaltered till, approaching the sigmoid flexure, it became thickened ; and below this point, it was so condensed by scirrhous deposit, and its cavity so constricted, as barely to allow an urethra bougie to pass. The upper portion of the rectum was similarly condensed, the lower portion being still free. The aorta and vena cava were surrounded by the lumbar glands in an hypertrophied condition. Upon removing the pelvic viscera, and making a longitudinal incision through the whole, the following was the appearance of the parts. The upper portion of the bladder was healthy, but its base, anterior and posterior walls, were much thickened, and studded with cancerous masses developed in the submucous tissue ; one of these, a pisiform body, occupyied the entrance of the urethra. The mucous surface was highly vascular, but not abraded in any part. The opening of the ureter was patulous on both sides, its valvular condition being lost. The vagina was healthy as far as the cervix uteri. Here, between the anterior lip and orifice of the womb, a small cauliflower growth had sprung up, from the submucous tissue, during the few weeks that the escharotics had been laid aside. The walls of the vagina were thickened, the anterior with the base of the bladder, together forming a scirrhous mass more than half-an-inch in depth. The cavity of the uterus remained ; the walls of this organ were hard, thickened, and condensed. The ovary upon the right side was glued to the fundus of the womb. Upon the left side it was altogether lost in the cancerous mass. The rectum, taken from below, retained almost a natural cavity up to the point of the coccyx. Its mucous surface was much congested from the constriction above, of a deep purple colour, hypertrophied, and hanging in folds. Beyond the coccyx, the cavity of the intestine had nearly disappeared; the bowel having been converted into a solid mass, permeated by an irregular sinuous way, pervious to fluids, but not permitting any solid matter to pass. It was this irregular constriction, this binding in of the gut, that, viewed *in situ*, established the idea of scybala being lodged in the parts. I succeeded in removing the whole of the parts engaged.

*Microscopic Examination.* The fungoid mass under the microscope, at a power of 250, showed the presence of nucleated cells and other phenomena, now commonly supposed to be peculiar to malignant growth. Of the cancerous character of this case there could be no doubt, springing as it did directly from a scirrhous womb ; the finding, therefore, of these bodies, supposed to be characteristic of cancer, in this specimen, was confirmatory of the truth of the views of Müller. A drawing of the ultimate structures, as viewed under the microscope at this power, taken by the aid of the camera, by Dr. Carte, closely resembled the figure (No. 2) delineated as the microscopic appearance of cauliflower growth, depicted in the October number of the *Edinburgh Monthly Journal* for 1842, in connexion with a paper on this

subject, by Dr. Anderson of Glasgow. The white substance which constitutes the bulk of the structure, Dr. Anderson considers to be formed by a membrane of extreme tenuity as a matrix, which, amply supplied with blood, creates, by a change in the corpuscules, this whitish substance, a lardaceous or cauliflower structure, having all the characters of soft cancer: being, in fact, a growth by imbibition *from* the blood, but *beyond* the capillaries.

Remarks. A difference in the two cases (and one of importance), is, as regards the formation of the central or fibrous portion of the tumour. Dr. Anderson considers it to have been an hypertrophied condition of the neck of the womb. In the case before us, however, this central, hardened structure, which resisted the action of the ligature at the time of being applied, when the circumference, or softer portion, was cut through, must have been a portion of malignant growth; as inspection of the preparation shews the neck of the uterus to be perfect, the cauliflower excrescence having sprung from the sub-mucous tissue covering its anterior lip.

The immediate occasion of death, there can be little doubt, was peritoneal inflammation, consequent upon the implication of a portion of the small intestine in this disease.

By reference to the preparation shewn, the intestine was seen pinched in, and adhering to the structures between the rectum and the womb: its being so, Mr. Tufnell considered as consequent upon an *effort of nature* to establish a passage for the contents of the bowel into one of the natural outlets of the body, when its further progress was arrested by the schirrous deposit, and obliteration of the cavity of the gut. In simila rcases, the desired communication has been established. A case in point is reported by the late Dr. Beatty, in the *Transactions of the College of Physicians* for the year 1830: "The principal complaint of the patient was incessant vomiting and inability to pass her stools, from what she termed a lump in the passage. A few days subsequently the nurse informed me that the stools came from the vagina when the patient endeavoured to pass water: the truth of this statement was doubted, from the absence of feculent smell. Subsequent dissection, however, proved the fact: a convolution of the ileum near its termination dipped down into the pelvis, and passed in a curved line from left to right, between the back part of the vagina and rectum. On endeavouring to draw up this fold of intestine, it was found to adhere to the organs between which it passed. The anterior surface of the rectum was perforated by an ulcerated opening, communicating direct with the vagina, the ileum also opening into it at this spot. This communication contributed largely to the comfort of the patient, by affording a ready outlet for the contents of the bowel; thus preventing any accumulation in the large intestine, whilst the fæces at the same time passed off in a comparatively inoffensive state, not having acquired that peculiar odour which they gain on entering the cæcum." The case before us greatly accords with the one related by Dr. Beatty, but differs in one important point. "I do not remember," says Dr. B., "to have met with an instance of this disease (scirrhous uterus with cauliflower growth) in which an early interruption of connubial intercourse had not taken place." Susan N. had never been separated from her husband for any length of time, and had borne eight children, dispersed over eighteen years.

As to the propriety of interfering with a disease which we know must eventually terminate life, Mr. Tufnell observed, that it is by many considered impolitic to undertake an operation which *must* have an unsuccessful result; but this feeling should never prevent a man from doing that which experience tells him will tend even to the prolongation of life, more particularly when acute suffering does not accompany the operation. He might safely say, that Susan N. could not have survived two months in the condition she was in, when the fungoid mass was removed. Yet, what was the actual result? Despite of additional illness from inflammation of the lung, she was restored to temporary health; and even enabled to earn her bread by active employ-

ment. Could she have enjoyed those advantages which fortune bestows, the progress of the disease might have been longer stayed. The very employment she followed—viz, going constantly up and down stairs, was the opposite to what we should enjoin upon a person in her situation; nay, the very walking a distance so frequently, to have the ulcer touched, must have had an injurious effect. Neither hæmorrhage from the base of the tumour, nor constitutional irritation from the constriction of the ligature, occurred.

Mere removal of the fungous growth is likely only to afford temporary relief, so great is the tendency to reproduction. Once removed, and its base laid bare, we must assiduously apply escharotics to the ulcerated spot, in order to check reproduction. In the case now under consideration, a variety of caustics and astringents were employed—nitrate of silver, nitric acid, acid nitrate of mercury, and sulphate of copper, together with undiluted goulard, the latter being chiefly resorted to at the termination of the menstrual flux, More benefit, the author said, accrues from the frequent changing of these applications than from the continuance of any particular one. Much stress has been justly laid upon the lasting effect produced by the application of the actual cautery to the spot: but this imposes the necessity for a second person to assist in its use. Were he to give preference to any one in particular, it would be the nitric acid, used pure or diluted, according to the effect to be produced.

In the application of this or any other fluid caustic, I use a very simple and efficient contrivance—viz., a stout glass rod, with an eye at one extremity, through which the end of a piece of lint is placed. This, twisted firmly round between the fingers and thumb, forms a spongy bulb, which, dipped into the fluid, will retain whatever quantity it may be requisite to apply, without any disposition to drip.

Remedies calculated to check the formation of fungus, and thereby prevent hæmorrhage from the spongy growth, are useful. During the attacks of menorrhagia, he had full opportunities of testing the relative value of turpentine, mineral acids, muriated tincture of iron, gallic acid, alum, lead, matico, ergot of rye, and the tincture of Indian hemp. Of all these, the most decided benefit followed the use of the ergot of rye, given in ten-grain doses, at intervals of four hours, repeated up to the fourth or fifth time.

Dr. Johns, thinking the society would like to see the morbid parts of the case treated by Mr. Anderson of Glasgow, had brought them with him to the meeting. The ligature had been passed round the tumour; but he was inclined to think that the whole of the diseased mass had not been removed, as the disease had returned. After the operation, the woman went away, and subsequently came under the observation of Dr. Montgomery, who removed a similar tumour by means of a ligature. Dr. Johns exhibited the morbid specimens removed from the patient referred to, and at the same time showed a drawing illustrative of a similar disease, which had been removed by himself from another female by incision. In this instance, he laid aside the ligature, and removed the diseased mass by incision, after the method recommended by Lisfranc. The disease was of very long standing; and the patient, who was greatly debilitated at the period of the operation, sank from hæmorrhage at the end of a week. The disease was almost sure to return, unless the morbid mass were completely taken away. Dr. Simpson had published several cases, in which he had successfully employed the ligature; and the reason that the disease had not returned in these cases was, because the entire of the diseased structure had been removed. In Mr. Tufnell's case, however, it was evident that the ligature had passed through the diseased mass. He thought that in every instance in which the disease had returned, this was caused by the ligature not being placed sufficiently high to reach the healthy portion of the uterus. Notwithstanding the result of the case upon which he had himself operated, he was of opinion, that in most instances, the cure by incision was preferable to the ligature; for

he had no doubt that the woman to whom he had alluded would have survived the operation, if she had not been in the debilitated condition he had described. He would strongly recommend, that in every case in which incision was to be employed, a ligature should be applied, and left on for at least twenty-four hours previous to the operation.

Dr. Montgomery begged to offer one or two remarks in reference to the allusions which had been made to him, in connexion with a case upon which Dr. A. Anderson, of Glasgow, had operated once; and in which the disease had subsequently returned. It was stated that he (Dr. M.) had operated upon this patient a second time, and had removed *another portion of the tumour*. The course he took was not to remove any *portion* of the tumour. He passed a ligature as high as he could reach upon the surface of the uterus, and removed *a portion of the healthy structure, together with the whole of the diseased mass*. The woman was at present quite well, although six years had intervened since the operation.

Dr. Johns thought the remarks made by Dr. Montgomery tended to fortify the position he had taken, which was, that if the healthy portion of the uterus be included in the incision, the disease would not return.

Mr. Tufnell said, that a case like the present precluded the possibility of ligature being so applied. The whole uterus was in a scirrhous state, and the fungoid growth was but an offshoot from it.

Dr. Banon hoped that Dr. Montgomery would state his experience, as to the relative advantages of incision and ligature in the removal of these growths.

Dr. Montgomery said, that if he had acquired much experience as to the relative value of the two operations, he would gladly state his views; but he had but little experience in operating with the knife upon these tumours. He had almost invariably employed the ligature, and, upon the whole, the result of his practice was such as to induce him not to alter this course. He was fully aware that other practitioners had excised these growths with remarkable success. But he also knew that some of the cases so treated had terminated in a truly lamentable manner, from profuse hæmorrhage resulting from the operation. Perhaps excision might be employed with advantage in a few cases; but, as far as the removal of polypi and scirrhous growths was concerned, his opinion was altogether in favour of the ligature. With respect to the glass rod, he was unable to perceive any valid objection to its employment; it was used through a speculum, and if it were managed by a steady hand, he did not think that a jerk on the part of the patient would be likely to fracture it; but even if it did, there was, after all, no danger to be apprehended. He had himself been in the habit of employing for this purpose, in the application of escharotics, a material of a very unpretending character, but which he had nevertheless found exceedingly useful—namely, *a piece of deal stick*. These sticks might be formed of the requisite length and thickness by means of a penknife, and soaked to such a degree of saturation in the acid as would ensure the application of a sufficient quantity of the liquid without the possibility of any portion of it dripping back into the vagina, a very unpleasant accident in such cases. He concurred as to the general insensibility of the surface of the uterus in these cases; but it was impossible to determine beforehand, that the application of escharotics would not cause pain; and even sometimes, after they had been, to all appearance, applied with impunity, at the end of two or three hours the most agonizing pain would come on.

Dr. Stapleton had found a stick of "prepared vine root" a very useful instrument for the application of escharotics. Nothing further was necessary, than to dip it into the acid before using it. He had always been able to apply acids and other escharotics with these sticks, without the slightest danger of dripping.

## MISCELLANEOUS INTELLIGENCE.

The Proposed Junction of the Medical Society of London with the Westminster Medical Society. We understand that the deputations elected by the respective Councils of the above Societies have met in conference, with a view to carry out the proposed amalgamation, and we believe it is the wish of the active movers in the change, that the principles of the United Society shall be both comprehensive and liberal. The great boon to the members of our profession of a society, in which every department is represented on conditions of perfect equality, cannot be overlooked, and that the "Medical Society of London" will take a high position among our metropolitan institutions, we cannot entertain a doubt. The antiquity of the parent Medical Society of the metropolis, its valuable ancient library, consisting of upwards of fifteen thousand volumes; its Fothergillian fund, and freehold house, together with a list of about one hundred Fellows, in which are numbered some of the most distinguished members of our profession, constituting what we may term its contribution to the amalgamated society. On the part of the Westminster Society, about two hundred and fifty subscribing Fellows, and a long list of honorary Fellows (in both of which lists we find most active and distinguished men), in addition to a well filled exchequer, will form their share in the new Society. The locality is to be in the vicinity of Saville-row; and in addition to the advantages of a good circulating library, a reading-room, and capacious accommodation for the discussions, a proposition has been made of combining the advantages of a Club, for the especial accommodation of the suburban members of the Society. This department, if carried out, will be somewhat analogous to the arrangement which formerly existed between the Royal Institution in Albemarle-street, and the Alfred Club contiguous to it, in which the literary Fellows, who felt disposed, enjoyed the privileges of the social Club, and the members of the latter were eligible to the advantages of the former.

Dinner at Edinburgh to Dr. George Paterson. On Friday, 4th January, Dr. Paterson, Secretary to the Royal College of Physicians, was entertained at dinner in the Archers' Hall by a large party of his professional and personal friends, on the occasion of his leaving Edinburgh to settle at Tiverton, in Devonshire. Dr. Seller, President of the Royal College of Physicians of Edinburgh, occupied the chair. Professor Syme, President of the Royal College of Surgeons, officiated as croupier. Dr. Charles Ransford, who preceded Dr. Paterson as Secretary to the College of Physicians of Edinburgh, received a dinner about twelvemonths ago, in similar circumstances, viz.: preparatory to his settling in Alnwick, Northumberland.

Royal Infirmary of Edinburgh Report for 1849. It appears that the number of patients admitted during the year, from the 1st October 1848 to 1st October 1849, with 320 remaining over the previous year, amounted to 4006; of whom there were dismissed,—cured 2466, 391 relieved, 179 with advice, or at their own desire, 86 as irregular or improper, and 84 as having received no benefit; the number of deaths were 518; amounting in all to 3724; thus leaving in the hospital on 1st October last 282. In these numbers were included 726 cases of fever, and 132 cases of cholera, 88 of the former, and the same number of the latter having proved fatal. The daily average of patients was 322, the greatest number 350, and the lowest 280. The greatest number in 1846-47 were 7705, and in 1847-48, 7766; thus showing a diminution this year of about 3709. For the first time for many years the ordinary expenditure has been brought within the ordinary income to the extent of 614*l*. The remaining properties in Surgeons' Square, with the ex-

ception of a house belonging to the Medical Society, have been purchased. The managers are now able to proceed with the proposed additional buildings without interfering with the existing capital stock of the corporation, through legacies and other bequests added to the surplus of the present year. The Royal Infirmary is the only hospital in Edinburgh.

Medical Men and New Medical Books in Europe.—"We are informed that Copland's *Medical Dictionary* is in a fair way of completion, there being but two more numbers to come besides the 'Index', and one of these is now in press. Dr. Copland has promised that the whole shall be completed within a year from this. He is in good health, and looks as if he might write another dictionary as large as the present, if necessary.—Dr. Marshall Hall intends soon to visit the U. S.—Dr. Forbes is preparing a work on 'Young Physic', which he says will close his professional career. Ricord and Civiale take the lead in their respective specialities, and are overwhelmed with business. In Edinburgh, Prof. Simpson takes the lead; especially in diseases of females, having patients from every part of the globe."—*Boston Medical and Surgical Journal.*

Professional Nationality. "In illustration of the *Clannish* rule by which the Directors-General of the Medical Departments of the Army and Navy are governed, the following tabular analysis has been prepared. It is a really curious document, and shows respectively, the comparative number of natives of England, Scotland, and Ireland, with their rank in the service —viz.

| Inspectors-General. | Dep. Inspectors-General. | Staff-Surgeons 1st class. | Staff-Surgeons 2nd class. | Assistant Staff-Surgeons. |
|---|---|---|---|---|
| Scotch .....3 | Scotch .....7 | Scotch ...21 | Scotch ...26 | Scotch ...61 |
| Irish .....2 | Irish .....3 | Irish .....10 | Irish .....14 | Irish .. ...10 |
| English.....0 | English.....2 | English ...4 | English ...10 | English.....6 |
| | West Indian1 | | | Colonists ...2 |

In addition to the above, we notice that the '*Blane Medal*,' founded by the late Sir Gilbert Blane, which is awarded by the Council of the College of Surgeons on the recommendation of the Director-General of the Medical Department of the Royal Navy, Sir William Burnett (another Scotchman), that eight out of ten are Archy McSycophants, Campbells, and Macduffs."—*Lancet*, 26th Jan., 1850.

Have Sir James M'Grigor and Sir Wm. Burnet planted and made to prosper Scotch physicians in nearly every town of England? or, how is the preponderance of Scotchmen in the H.E.I.C. service to be explained? We believe that medicine is as much a pet profession with the Scotch, as cookery is with our French neighbours: and that the army being chiefly supplied with Scotch surgeons and French cooks arises truly from "*professional nationality*", and not from the prostitution of patronage. The educated youth of Scotland have an extraordinary and foolish repugnance to the trades which, in England, men of good position are willing to enter. The cheap, good, and universal education of Scotland spoils too many for trade, and forces an undue numerical proportion of the aspiring youth to seek their fortunes in foreign parts, or to enter the learned professions. The same causes are somewhat operative in Ireland, as is illustrated by the above table copied from the *Lancet.*

Portrait of J. Ranald Martin, Esq. An admirable likeness of this distinguished surgeon has been added to the series of medical portraits, published by Mr. T. Stone, of the Royal College of Surgeons. It has the merit of being a beautiful work of art, as well as a faithful portrait.

Dr. Charles D. Meigs, the eminent author of the Treatises on *Females and their Diseases*, and on *Obstetrics*, has resigned the post of Physician to the Lying-in department in the Pennsylvania Hospital. Dr. Joseph Carson has been elected in his stead.

## APPOINTMENTS.

Banks, Dr. John, Physician to the Whitworth Hospital, and to the Lord-Lieutenant, elected King's Professor of the Practice of Medicine in Dublin University.

Bricheteau, M., appointed President of the Academy of Medicine of Paris for the ensuing year, on the 17th December.

Canton, Edwin, Esq., appointed Assistant-Surgeon to the Royal Westminster Ophthalmic Hospital.

Garrod, Dr. A. B., appointed Physician to University College Hospital, in the room of the late Dr. A. T. Thomson. Dr. Garrod had been already appointed to the chair of Materia Medica.

Lansdown, J. G., Esq., re-elected Surgeon to the Bristol General Hospital.

Markham, Dr. W. A., elected Physician to the Western General Dispensary, in the place of Dr. Day, appointed to the Chandos Professorship at St. Andrew's.

Mauley, Dr. John, elected Physician to the City Dispensary, in the room of Dr. Bentley, resigned.

Orfila, M., appointed Vice-President of the Academy of Medicine of Paris.

Skey, F. C., Esq., appointed to deliver the Hunterian Oration, on the 14th February, at the Royal College of Surgeons.

Topham, Dr. John, Physician to the South Staffordshire General Hospital, elected Consulting Physician to the Infirmary at Bridgnorth, Salop.

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## OBITUARY.

Abercrombie, John B. Esq., Surgeon, after a few days illness, lately.

Acheson, Guy, Esq., late Surgeon R.N., at Dublin, lately.

Bain, Dr., suddenly, at Nairn, N.B., lately.

Clanny, Dr. W. Reid, at Bishopwearmouth, on 10th January. He was Physician Extraordinary to H.R.H, the late Duke of Sussex, and upwards of fifty-five years Physician to the Bishopwearmouth Infirmary, and an eminent contributor, in various branches of knowledge, to most of the leading publications of the day.

Dawson, Charles, M.D., Surgeon to the 54th regiment, at Antigua, of yellow fever. on 13th December.

Dickson, Sir David J. H., M.D., Inspector of Hospitals and Fleets, at his residence, Lower Durnford Street, Stonehouse, Devon, aged 69, on 2nd January.

Elliott, Dr. T. C., 6th Bengal Light Cavalry, at Meerut, E.I., aged 54, on 14th November.

Foot, Jesse, Esq., late of Jamaica, at Ilfracombe, Devon, aged 70, on 5th January.

Giacomini, Professor, of Padua, lately.

Gillard, Richard, Esq., Surgeon, at Salcombe, near Kingsbridge, Devon, lately.

Harbord, H. G. Esq., Surgeon, at Liverpool, lately.

Hunt, Francis, Esq., Surgeon, at his residence, Bath, aged 51, on 27th December.

Kidd, Dr., Inspector of Military Hospitals, of bronchitis, on 24th December.

Lewis, John, Esq., Surgeon, formerly of Mark Lane, on 25th December.

Stevenson, Dr. John, of Craigmore, Bute, at Hamilton, N.B., on 9th January.

Prus, Dr., late Sanitary Physician in Alexandria to the Academy of Medicine, at Paris, aged 56, lately.

Rouse, Robert, Esq., Surgeon, at his residence, Wallham Green, Fulham, on 25th January. He was found dead in his bed.

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## BOOKS RECEIVED.

Brinton, Contributions to the Physiology of the Alimentary Canal. London: 1849. Davey, Contributions to Medical Pathology. London: 1850. Easton, Introductory Lecture at Andersonian University in Glasgow. Glasgow: 1849. Hancock on the Operation for Strangulated Hernia. London: 1850. Jacob on Inflammation of the Eye. Dublin: 1850. Locke and Sydenham: a Review. Edinburgh: 1849. Medical Directory for 1850: London: 1850. Murphy on Chloroform in Midwifery. London: 1850. Rees on Diseases of the Kidney. London: 1850. Report of Pathological Society for 1848-9. London: 1849. Wood (Dr. A.), Rational Medicine. Edinburgh: 1849.